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Palmtop

The journal for Psion Series 3 and 3a users

Issue 6, Volume 1 Bimonthly

News, reviews, gossip, feature articles, programming, letters, hints & tips, tutorials and more...

...80 pages of up-to-date information on your favourite PALMTOP computer!

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Palmtop
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Thanks...

Special thanks for this issue go to Pete Sipple, whose contributions to the production of *Palmtop* increase with every issue. Thanks Pete.

Thanks also to all the contributors whose names appear within the magazine, particularly Andrew Baldwin for his regular programming articles and Pete Sipple and Rosemary for their combined proofreading efforts.

Address

All requests for subscriptions or back issues and any comments or criticisms regarding the content of *PALMTOP* should be directed to the editor at the following address:

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or: 100602.3723@compuserve.com

Submissions

Any contributions of material published within the pages of *PALMTOP* (excluding 'On The Net') will earn the author one free issue added to their subscription. If you wish to write feature articles for the magazine then please contact the editor to discuss your ideas. Any articles over 1000 words in length will earn one year's extension to the author's subscription, or a minimum payment of £40 (or foreign equivalent).

Back Issues

Back issues of *PALMTOP* are available at one sixth of the annual subscription price per issue. Just send payment in the usual way, stating which issues you require.

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General

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Editorial

After a decade or so of using various palmtop, notebook and laptop computers I still haven't worked it out. I can't decide whether the average non-computer-user thinks of these marvellous devices as serious business tools, or just expensive executive toys—playthings for the incurable gadget freak. Personally, I just can't be at all objective about it, having long since confessed to being just the slightest bit 'freaky' when it comes to electronic devices of the gadget-like persuasion. Don't get me wrong—I'm wholly sold on the benefits of all this electronic wizardry, and firmly believe that it all contributes to making my business life more productive and my private life more organised, it's just that I don't think I'd ever go back to using a pencil and paper instead—even if it was the most efficient way of doing the job.

Many of us computer 'enthusiasts' can fall into the trap of forcing our computers to perform tasks that are really better done using more conventional (if mundane) methods. Displaying a detailed plan of your new house extension on your 3a screen is all very clever, but in most cases it has few practical advantages over simply using a paper copy. Performing a mass mailing to a couple of thousand customers is all quite possible with the appropriate software on a 3a, but one can't help thinking that in 99 percent of cases this is just trying a little *too* hard to use the Psion for something better suited to a larger computer.

Every job has its ideal tools though, and in many cases the 3a is an unparalleled solution to the task in hand: be it accessing a database of information, writing a report from the top of a mountain (or a bus), or reading your e-mail messages in those odd convenient moments that invariably present themselves during the course of a day.

I suppose that the important thing to remember with palmtop computers is that they are not simply a surrogate for a desktop computer, laptop computer or anything else. They are a tool in their own right with their own unique strengths and weaknesses, and their own niche in our everyday lives. As the precise functionality of palmtops develop with the progress of technology then their limitations will no doubt fade away to some extent, but I guess I'll never be publishing an 80 page magazine using a handheld computer—or perhaps I will...

Steve Clack - Editor
21st March 1996

Palmtop News

The latest hot gossip on what's happening in the Psion world

Rumours of new Psion models...

Rumours continue to fly concerning the potential release of one or more new machines from Psion. The current (unsubstantiated) state which is that a cut-down version of the 3a is likely during the next few months, with a full-blown successor to the 3a still likely to be 6-12 months away. The cut-down machine may have little or no expansion capability, and will be aimed at the market segment currently dominated by companies such as Casio and Sharp.

Be assured that *Palmtop* will be providing in-depth coverage of all new developments as soon as information becomes available. Anyone interested to read about some of the rumours in more detail should turn to page 61 of this issue for the latest 'Series 4' gossip from the Internet.

Psion put the squeeze on dealers

Psion have recently increased the buy-in price to their dealers by approximately 10%. Recommended retail prices remain unchanged however, so the move is likely to have the effect of simply reducing the level of discounts offered by certain dealers. This should lead to a more level playing field for those selling Psion products, but will inevitably cost the end-user more money as previously discounted prices increase to recover lost margins.

Virgin 3a takes to the air

British entrepreneur Richard Branson will be taking several Psion 3a's along with the crew on his forthcoming round-the-world balloon expedition. The machines will run the GNAV3a professional flight planning software to automate all aspects of the normally tedious and repetitive manual calculations needed during flight. No doubt the occasional game of *Patience* will help to while away the long hours too.

Limited Edition wood effect Series 3a

If you'd like to stand out in a crowd with your 3a then you may be interested in

Not *especially* portable, but a great asset to many Psion users nevertheless...

Psion's recently introduced 'Limited Edition' wood-effect 2Mb unit (as pictured on the front cover of this issue). Apparently available only until the limited production run is exhausted, this 'presentation boxed' machine retails for £449.95 including VAT—some £50 more than the standard 2Mb model. What next, wood effect SSDs?

Electronic banking with the Series 3a

Lloyds Bank in the UK are currently running a pilot 'electronic cheque book' scheme using the 3a and a 3Fax modem. The service provides the ability to write and send 'electronic cheques' to any UK bank account, view statements, obtain account balances on up to four accounts, transfer funds between accounts and pay bills electronically.

For further information contact:

Angela Fellows/Sara Eaglen
Lloyds Bank Press Office
Tel: 0171 356 1262/2076

A 'real' keyboard for the 3a

Someone has at last come up with the means to interface a standard PC keyboard for use with the Series 3a. The keyboard is connected via the standard *3Link* cable through a small (25 x

50 x 100mm) adaptor box. The box is powered by either an internal PP3 battery or via a standard 3a mains adaptor. The box comes with a special 'driver' program to allow the 3a to 'understand' characters typed at the keyboard, and a special low-power compact 'Cherry' keyboard can be supplied with the adaptor if required. Price for the adaptor and software is £55 plus shipping charges, and the UK version of the keyboard costs an additional £55. Foreign layout keyboards can also be provided at an additional cost.

The keyboard will be the subject of an in-depth review in the next issue of *Palmtop*.

Contact:

Dr Keith R Baker
61 Alderhill Drive
Totton
Southampton
Hampshire SO40 8JB
England

E-mail: krb@ecs.soton.ac.uk
Tel: +44 (0)1703 864310

PsiWin deal from Psion

Until 27th April Psion will be offering their PsiWin PC connection cable and software at the discounted price of £40 (approximately half price) when purchased with either a 1Mb or 2Mb Series 3a. The offer is available through usual UK stockists (Dixons, John Lewis, WH Smith, Boots, Curry's and Argos).

Purple products due

Purple Software will be releasing several new products over the next few months:

The first item is a combination games pack incorporating the popular Backgammon and Chinese Chess board games. The product is due for release in late April.

The second offering is a 3a version of Bridge, the card game. Release of this is likely to be within a month of the other pack, and the price of both packs has yet to be announced.

Finally, Purple will shortly be releasing a 720K/1.44Mb DOS/Windows compatible floppy disk drive for the Series 3a. The drive is battery powered, does not require a 3Link, and will be priced lower than any current floppy drives available for the 3a. The unit will be packaged together with Purple's own File Manager software, and again is due for release in the very near future.

Expect to see all of the above items reviewed in the next issue of *Palmtop*.

Purple Software:

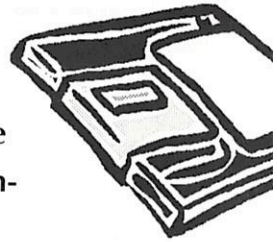
Phone: +44 (0)171 388 3111
Fax: +44 (0)171 387 1188
E-mail: 100526.3715@compuserve.com

The death of the Series 3

Psion have now dropped production of the original Series 3 (now referred to as the 'Classic'). The four 3a models now form the entire 'Series 3' range.

Shareware Shorts

New shareware for the Series 3 and 3a is being released daily. Pete Sipple take a brief look at three new programs that have caught his eye since the last issue of *Palmtop* and gives you a quick run-down of what's new on the shareware scene...



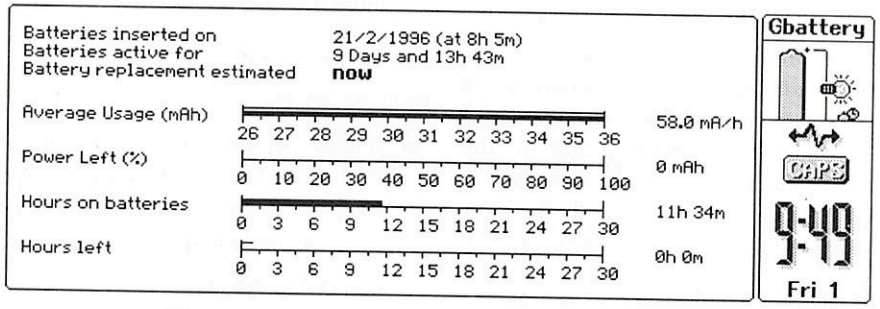
Power to your Palmtop

Version 1.1 of a new battery monitoring program, *Gbattery*, keeps track of your power consumption patterns. This excellent utility features a graphical battery usage monitor, an alarm to indicate when your remaining power drops below a preset value, estimates the number of hours of power remaining and when to replace batteries, monitors short-term power usage, and has an optional self-discharge setting for Nicad rechargeables. Best of all, it's freeware!

GBATT11.ZIP (8K when zipped).

It could be YOU...

Lotto is a feature-packed U.K. Lottery predictor and checker. The current


Batteries inserted on
21/2/1996 (at 8h 5m)
Batteries active for
9 Days and 13h 43m
Battery replacement estimated
now
Average Usage (mAh)
58.0 mA/h
26 27 28 29 30 31 32 33 34 35 36
Power Left (%)
0 mAh
0 10 20 30 40 50 60 70 80 90 100
Hours on batteries
11h 34m
0 3 6 9 12 15 18 21 24 27 30
Hours left
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Gbattery
CAPS
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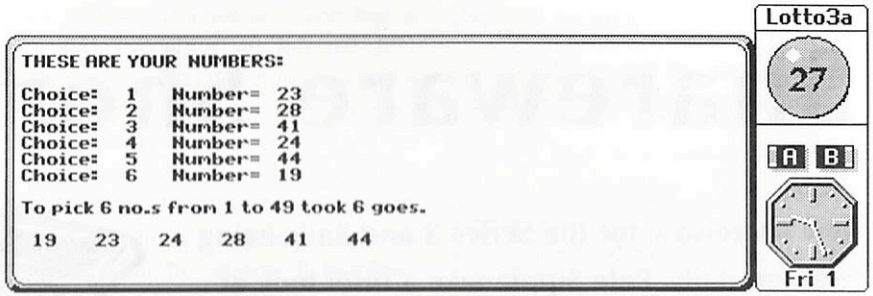
Gbattery - a comprehensive display of battery status



Your number could be up, with Lotto3a

version, v2.03 is a major upgrade with increased speed. Described as 'an all singing, all dancing lottery ticket checker and analyser', this package stores & checks unlimited tickets in seconds. A number of different selectable predictions are available and results can be analysed using *binomial statistical theory*. All results and your tickets may be graphically analysed—with or without the bonus ball.

LOTTO203.ZIP (16K).

Help—Let me out!

It's happened to *me*—the most common and most frustrating problem that can occur on a Series 3a—the hot key button failure (the strip of icons just above the keyboard). If you're unfortunate to be stuck without a System button, you'll curse yourself for not having loaded TOSHELL for the Series 3 and 3a. This handy little program simply allows you to hit CTRL-Z to perform exactly the same function as the 'System' button. That's it!

TOSHELL.OPO (just 192 bytes in size).

What's new—files released since the last issue:

- Version 1.7.01 of Mapper-3a/London has been released, with an expanded coverage beyond the M25 to the west of London, extra tweaks to the GPS code, road display updates accelerated by up to 50% on many views, plus other minor changes.

  MAPL17.ZIP (124K)

- Version 1.3 of Memovoc2, the voice memo manager for the 3a. Allows for recording and playback of voice memos.

  MEM2VOC2.ZIP (24K)

- Another screen saver from Andrew Baldwin, which 'melts your system screen in a choice of two amusing ways. Series 3a only.

  MELTV100.ZIP (4K)

- 3a Logging utility for Amateur Radio users.

  HAMLOG21.ZIP (18.5k)

- BUSDAT is a fixed format Business/Home contact database—coming somewhere between Psion's own DATA application and Symantec's 'ACT!' contact manager.

  BUSDAT.ZIP (12K)

- Notepad 5.41 for the 3a. Several new features, all outlined in the update on page 40.

  NOTE541.ZIP (181K)

- Video tape database system by Patrick Bell.

  PBVID142.ZIP (15K)

- JBData version 1.4d. Purely a bug fix version after a problem with exporting to text files came to light.

  JBDAT14D.ZIP (66K)

The above shareware can be obtained from the usual sources. See 'Shareware - What, Where and How' on Page 43 of this issue.

Pete Sipple

Shareware ??

Many readers may be unfamiliar with how to obtain the enormous amount of shareware and free software available for the Psion Series 3 and 3a machines.

Apart from downloading the software from electronic bulletin boards and online services such a CompuServe and CiX, perhaps the most exhaustive catalogue of software is held by Steve Litchfield's '3-Lib':

3-Lib offers either a collection of several hundred of the very best shareware programs as a standard set on floppy disk, or selected files from the entire 3-Lib archives (currently around 1000 programs) on floppy disk or Flash SSD.

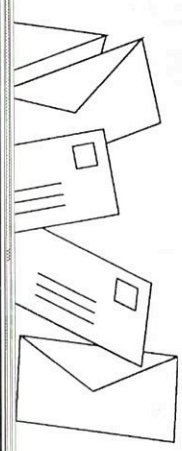
If you would like more information on 3-Lib then please contact Steve Litchfield directly at the following address:

3-Lib
22 Grays Crescent
Woodley
Berkshire RG5 3EN

Tel: +44 (0)1734 265081

E-mail:
slitchfield@cix.compulink.co.uk

or send an SAE for more details.



Readers' Letters

The author of the most interesting letter submitted for issue 7 will receive their choice of either a CD-ROM of Psion shareware or a leather carrying case!

PRIZE LETTER - Ron Cooper wins a Series 3a leather sleeve case for pointing out a pressing need for some 3a users...

SSDs for hire?

Dear Palmtop

Has anyone (including Psion themselves) ever thought about setting up an SSD hire service? There is certainly a potential need.

Recently, I had to send in my Series 3a for repair. Psion (understandably) cannot guarantee that memory will be preserved during this process. Fortunately I had *just* enough space elsewhere to back up everything, otherwise I would have been faced with having to buy an SSD just for this purpose.

There are other purely short-term needs for extra memory too, like getting copies of programs from Steve Litchfield's *3-Lib*. A hire system would seem easy to work: the hirer would ask for a deposit equal to the value of the SSD plus the hire charge. The deposit would then be refunded on return of the SSD.

Ron Cooper, York

This is a very valid (if difficult) point Ron. I have frequent conversations and correspondence with Psion owners without access to a second computer or an add-on floppy drive such as the RangerDisk. For these people SSDs are the only way to either backup or transfer software to their machine. Many people will buy SSDs in the course of using their Psion and expanding its capabilities, but a large number of users never feel the need to do this, particularly with the generous internal storage capacity of the more recent 1Mb and 2Mb 3a's.

It's difficult to see how providing such a service would ever prove profitable enough for anyone to actually take the trouble to set it up, but this is a very real problem for a huge number of users who don't want to unnecessarily add to the substantial cost of owning a Psion palmtop. The best solution is perhaps for some enterprising vendor to provide a cheap and simple floppy disk drive for the Series 3/3a. This would at least offer limitless backup capability and an easy way for everyone to benefit from the wealth of superb shareware and free software available for the Psion computers. £40 floppy drives anyone? - Ed.

Have Psion, will travel...

Dear Palmtop

Thanks for *Palmtop*. It has been an excellent view into the world of the Psion. Before that I felt like just a single user, now I feel like one of a family. I have become so attached to my Psion that I have taken it with me on my travels round the world. Whenever I get the chance I plug into a phone socket via a Pace Microlin modem (chosen after I read the article in issue 1 of *Palmtop*) and send envy-invoking travelogues to friends and family back home and around the globe. It beats postcards as I don't have to rewrite the same stuff 20 times.

Unfortunately I have not been able to read your magazine as I am currently in New Zealand and plan to spend 3 or more months in Australia, but I'll be sure to read the back issues on the doormat as soon as I return.

Malcolm Weller
London

Following on from the feature article on cases for the 3a in the last 2 issues...

Where to put your 3a...

Dear Palmtop

All this talk of holsters and cases and carriers...hitch your Psion under your arm, round your waist—oh, you poor men. Like many Psionists I have no trouble at all moving mine around and no fear of losing it or it getting damaged. Like more than half the population of the country I carry a handbag. And whilst we're on the subject of the physical attributes of the Series 3a, isn't it time Psion came up with a more attractive casing? I fancy something in a pretty blue, or perhaps jazzy red and yellow stripes. We're not all men in grey suits.

Jill Dick
Chapel-en-le-Frith, Derbyshire

Of course Jill, Palmtop has many female subscribers—and many men who don't possess a grey suit either...

On a more serious note, you may like to get yourself one of the limited edition wood-effect 3a's mentioned on page 4, though something with jazzy

red and yellow stripes could prove a little more difficult - Ed.

Wonder batteries for your 3a

Dear Palmtop

Your discussion of batteries in issue 2 did not mention the type of battery I have been using in my Psion for over a year now. They are available here in the U.S.A. and are called 'Ray-O-Vac Renewals'. These are rechargeable batteries but they are Alkaline. They have the advantages of Ni-Cad *and* Alkaline: having a good shelf life, can be charged a few dozen times, have the output characteristics of regular Alkaline, and cost only a little more than Duracells. they must be charged with a Ray-O-Vac "Power Station", which costs about $10 (as I remember) and will hold up to 4 AAs.

Perhaps this product is not available in Europe? I have been very satisfied with their utility and have use my original 4 batteries for over a year. I am presently averaging about 40 hours of use on these cells (originally I got almost 60 hours).

John Linn
Webster, New York, U.S.A.

Wow! These sound like a very worthwhile proposition. Have any of our readers come across these batteries outside North America? - Ed.

A letter from Purple...

Dear Steve

I'd like to make a few comments regarding your article on *DataView Pro* in issue 5 of *Palmtop*.

Regarding the help text. Despite your comments to the contrary we spend a significant amount of time considering the volume and contents of help text, and in fact all the displayed text within all of our products. Whilst I agree that the on-line help in both *Chess* and *DataView Pro* is quite sparse, the primary reason for this is a matter of economics. We have to produce multi-lingual versions of the software on ROM to make the products commercially viable. In the case of Chess there are currently 4 additional languages and 2 with DataView Pro: these obviously take up valuable SSD space. In order to offer the products at a sensible price it is MANDATORY that the ROM is no larger than 128K in size. If we go over that limit we would have to add 50% to the end user price—which is even less acceptable than a small amount of on-line help text.

With regards to your comments on 'not being able to instantly view a subset of selected data' it has occurred to me that during the development of the software we changed the way 'Create group' works, and I undoubtedly sent you a pre-release version which may not have the newer operation of 'Create group'. I have enclosed a copy of the released version as this may well be the source of the confusion. If you really do have the non-released version with the manual copying of items to groups, I agree wholeheartedly with you, the lack of the feature you describe was madness. Perhaps in the future we should attempt to liaise a bit more closely to prevent this kind of thing happening.

John Holloway, Purple Software

The issue of SSD size is very valid John. The high cost of media is quite a barrier to the distribution of Psion software, and I sympathise with the economic constraints this places you under. I'm sure that many Psion users don't appreciate that a large proportion of the cost of software is swallowed by the SSD itself. This is one of the reasons why I have always been so much in favour of offering titles on floppy disk as an option. This is of no use to those without a second computer, but at least offering both options gives everyone the choice. It's good to see Purple Software taking the lead in being the only major software company to offer this option on all of their products.

On-line help is an important part of the overall package though, so can you compromise by offering the additional help files on the floppy disk version, where the additional space is not a problem?

You are quite right on the Dataview Pro 'Create Group' facility. I have now loaded the latest version and everything works exactly as it should. Potential DataView Pro purchasers note that the 'serious limitation' I mentioned in my review no longer applies. To prevent such errors in the future I will be sure to liaise more closely as you suggest. Many thanks for pointing this out to me John - Ed.

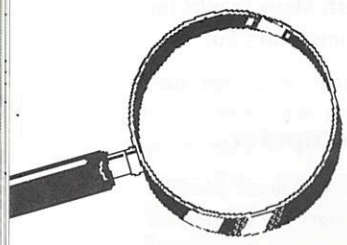
Never trust a computer...

In issue 4 of *Palmtop* David Morgan wrote: "just turn the machine's sound off entirely with Psion-S from the system screen" when in meetings, etc.

From my own experience I would warn people to USE THIS WITH CARE! The few times I've done it I forgot to turn the sound back on again afterwards. This means that I don't hear any alarms that day, but more importantly I sleep *very* well the next morning—I'm late for work and have to tell my boss that 'my Psion didn't wake me up this morning'. This is something I hate to admit, 'cause he triumphantly says something like "Well, I would never trust a computer" or "I knew there was something unreliable about that thing". As I said, use with care!

Jon Erik Schoenheyder
Oppdal, Norway

A Closer Look...



...at some of the newest & most interesting products available for your Series 3/3a

3Fax Software

The 3a has had the capability to send faxes for quite some time now, thanks to the *3Fax* modem. But at around £200 it was quite an expensive solution and the modem speed of just 2400 baud was quite a limitation, especially for the increasing number of users connecting to on-line services such as CiX and CompuServe via off-line readers such as ReadCix and ReadCis.

Now the software supplied in the internal ROM memory of the *3Fax* unit has been released on SSD disk without the fax modem to allow 3a users to send faxes via any Group 2 compatible fax modem. Given that most modems offer Group 3 compatibility this means you should have no problem using most current or recent models with this software.

Fax log

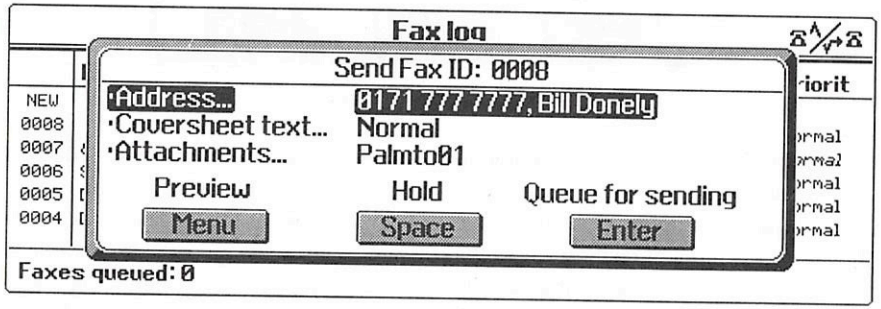
	Recipient name	Fax subject	Coversheet	Attachments	Priorit
NEW					
0008	Bill Donely	Psion software	Normal	Palmto01	Normal
0007	*Carolyn Worth*	*Review Notebook*	*<As edited>*	*<None>*	*Normal*
0006	Steve Bishop	Meeting cancellation	Normal	3fax01	Normal
0005	Donald Matthews	Possible meeting	<As edited>	<None>	Normal
0004	David Robinson	Sales figures	<As edited>	<None>	Normal

Faxes queued: 0

The Fax Log—comprehensive information on what you've sent

The software itself installs onto the 3a and provides two main programs: the fax software and a cover sheet designer. This latter option is almost identical to WORD and lets you design cover sheets which can include graphics files in PIC format.

Because you can print from almost any application it is easy to send things like a spreadsheet of sales figures or your forthcoming appointments to a secretary, client or colleague.

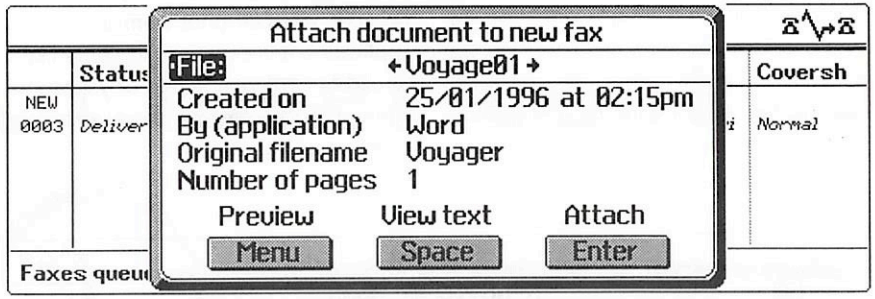


Will that be to send now or later?

This is useful if you want to incorporate a scan of your signature or company logo in a fax.

The process of sending a fax is very straightforward and can be done in one of two ways. You can either send a fax from within the *3Fax* software or from any 3a application that has a print capability. Provided you've selected 'Fax' as the printer driver, this means you can send a document, spreadsheet or just about anything as a fax through your connected modem. Once you've started the print process the software prompts you for the fax number, recipient name and fax subject, and these details are automatically entered into the default cover sheet. You can opt to use a different cover sheet if you prefer, and also attach up to ten documents to any fax.

Within the *3Fax* application you send a fax by selecting the NEW option in the Fax Log, and this lets you enter text and the recipient information into the cover sheet. Although you can enter the fax destination number manually, there are two useful time saving options if you're going to be sending lots of faxes. The first is the 'History List' which keeps a log of up to 50 previously used fax recipients and shows the name, fax number, position and organisation. By default, as faxes are sent to new destinations the details overwrite old History List entries, though you can specify that certain entries, such as those used most frequently, are never overwritten. The other aid to addressing faxes lets you link the details directly from a DATA file. You can then search the file for the correct entry and a press on ESC automatically inserts the correct details for the fax.



Attach up to 10 documents into a single fax...

Faxes can either be transmitted immediately or deferred until later: perhaps until cheap rate calls apply or until you've actually got a modem connected. As the fax is being sent a status line at the bottom edge of the screen gives feedback on the progress of the call.

The details of transmitted and waiting faxes are displayed in great depth in the Fax Log, which is the default view. This is a grid style display and shows the fax status, recipient number, name, subject, cover sheet used, attachments, priority, number of pages, origination date/time, date and time of despatch and duration. This is a very comprehensive list of information and is useful if you need to keep track of who's been sent what, and when. It can also be useful for billing purposes.

The final interesting feature is that you can send secure faxes where the document(s) will only be transmitted when the machine at the other end sends the correct identifying string.

With a price of around £49.95 the software is quite keenly priced, when you bear in mind that you can buy a reasonably fast modem for less than £100—so you've got a complete fax solution for less than the cost of the original *3Fax* hardware. The software is extremely slick being easy to use and offering plenty of genuinely useful features. If you like the idea of sending faxes from your 3a then this piece of software is a must-have item.

Mark Houghton

InfoBOX

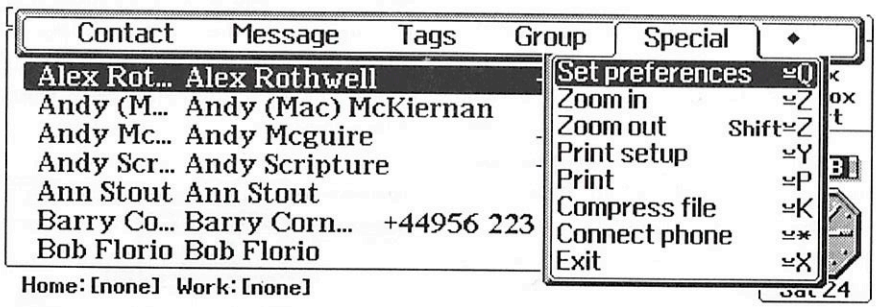
The 3Fax software is available from major Psion dealers at around £49.95 inc. VAT. It will not run on the Series 3 'Classic' machines. Note that this package does *not* include a modem or cables.

Psion SMS Link

Picture the scene, sitting on the 5:11pm express from Waterloo: out of your jacket pocket you take a 3a, followed by a *Nokia* digital phone. You link the two with a short lead, and *voila*—you're connected to the information superhighway. If only it was that simple. Full data connection between a Psion and a mobile phone currently requires the *3Link*, null modem lead, PCMCIA data link and PCMCIA to serial connection at a total cost more than £650—excluding phone, Psion or software! You'd need deep pockets in every sense.

composed on the handsets using the alpha numeric keys, however this is a laborious process as anyone who has tried to input information in this manner can vouch. The Telenote software improves the situation, allowing messages to be composed on the 3a prior to transmission and permits received messages to be read on the Psion screen and saved, edited or replied to.

The lead is 30cm long with a Psion 6-pin jack on one end, with a plug about the size of small matchbox connecting to the phone on the other. The software occupies about 108K of storage space, and needs around 100K free in which to run.

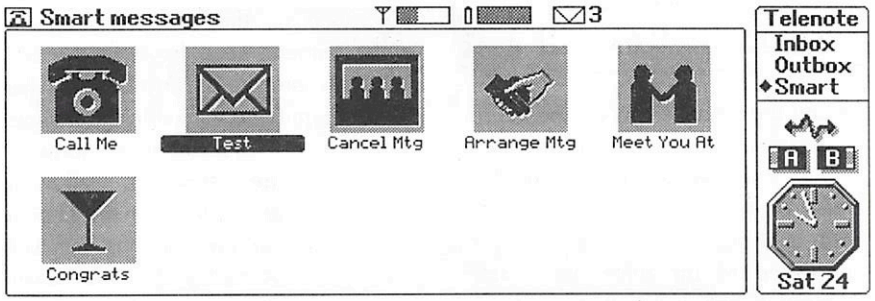


Telenote on the 3a

Psion's partial solution is the *Telenote link*. This neat lead and software package links a 3a or Workabout to either a *Nokia 'Orange'* or a *Nokia 2110* connected to *Vodafone GSM*. Armed with this it is possible to send messages using the Short Message Service (SMS). SMS is limited to text messages of 160 characters and currently can only be sent to mobile phones on the same network. Users of these phones can already send messages

As with most Psion products installation is straightforward, the interface and menus working intuitively. When the application is first run an interactive set-up session asking for personal details, etc. gets you under way.

The actual application has four views accessed by the diamond or hot keys: 'Contacts', 'Inbox', 'Outbox' and 'Smart Message'. Common to all views are



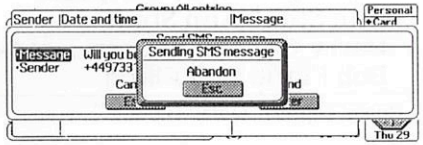
Smart Messages—organise your regular messages under icons

gauges giving the state of the phone's battery and signal strength.

Contacts is a database containing short name, full name and various telephone numbers. It allows the merging of existing databases, but this means duplicating information on the Psion and doubles the housekeeping task; further it does not support 'bring' or 'copy' from existing databases, nor is there a link to numbers stored in the phone. These are shortcomings which I feel should have been addressed. The creation of groups is perhaps its most useful feature as the same message can be sent to multiple recipients.

Sending a new message is simplicity itself: find the intended recipient or group (no 'find' command, just 'match as you type') and press 'Enter'. This jumps to a text editor that keeps track of the number of characters typed and warns if it exceeds 160. A 160 character maximum *is* limiting, but this is a feature of the SMS standard, not the software. A useful feature would be to split longer texts automatically across several messages and reassemble them once received. Sadly there is no spell check or macro support.

Inbox and *outbox* keep track of messages: giving details of recipients, senders, date and time, etc. These lists are updated when the phone is connected and outstanding messages sent/downloaded. Optional alarms warn of new messages.



DataView Pro has some SMS support

Smart Message is the jewel in the crown, allowing regular messages to be stored under icons (38 are supplied) and even supports limited mail merge, optional pick lists, and free text input.

On-line help is both extensive and useful. There was no documentation with the test software but I coped without difficulty. Overall it is a slick package despite the few niggles mentioned above.

At this moment only one other application supports SMS—Purple Software's superb *Dataview Pro* database package. It offers only limited support allowing messages to be sent to individuals in the existing databases. It downloads messages from the phone and stores them for viewing. It does not keep track of messages sent and it is not possible to compose them off-line nor to send them to groups. Dataview Pro is extremely competent in most respects but I feel the shortcomings of the SMS implementation (it is an optional extra) let it down.

SMS is in its infancy and is developing rapidly, with fax and e-mail gateways promised. At the moment I could not justify the purchase price of either package for SMS only. On the other hand if your work force has standardised on a supported network and you regularly need to contact groups of them then Telenote could be the ideal solution.

Vincent Philpott

InfoBOX

The Telenote SMS package costs £69.95 on SSD and £49.95 on floppy disk (inc. VAT). *DataView Pro* was reviewed in issue 5 of *Palmtop*.

Tube

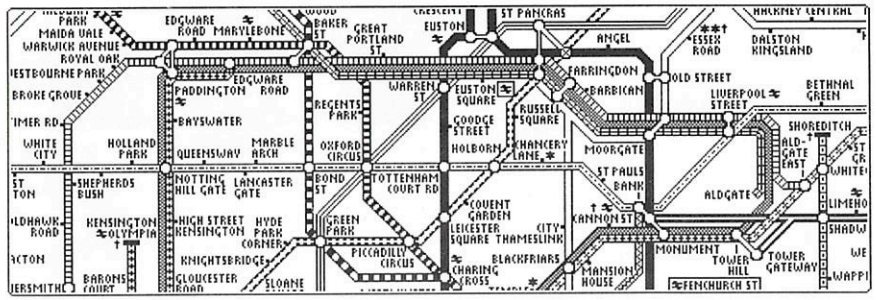
Best described as the *Autoroute* for the London Underground (subway), *Tube*, for the Series 3a helps travellers to navigate their way around the 250 mile maze of trains, tunnels and track.

The current version of Tube, v1.02, takes around 128K of disk space and needs about 100K of free memory to run. The program serves two functions: a route calculator and a reference map. The map includes the Docklands Light Railway, and British Rail lines, although BR stations which do not connect with an Underground station cannot be used for route calculation.

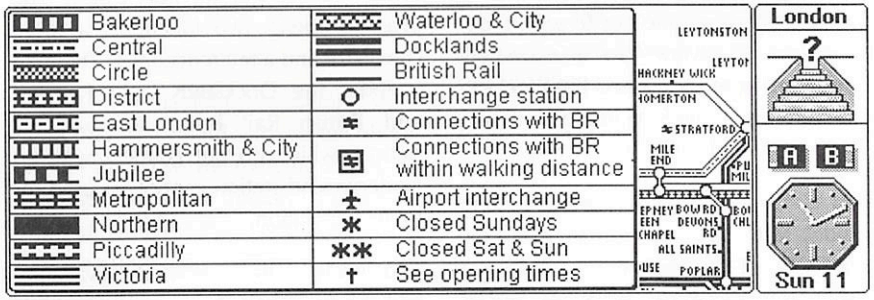
Two levels of map zoom are available, and although the on-screen map is not as easy to read as the colourful Underground maps commonly available, it is certainly usable. As we all know, the Series 3a can only cope with black, white & grey. This means that some compromises have to be made in order for the eleven differently coloured tube lines to be displayed. Tube copes with this as well as can be expected given the screen limitations.

Route Finding

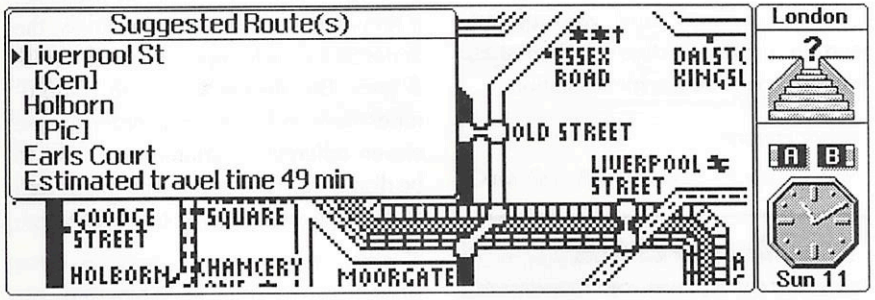
Entering a route is easy. From the menu, select 'Route', enter the start and finish points, and wait a few seconds. The example on the following page shows a trip from Liverpool Street to Earls Court. Tube advises taking the Central line, then



A part of the London Underground network shown in *Tube*'s default zoom size



Different patterns are used to identify the 11 separate Underground lines



Suggesting the best route—not always infallible

changing at Holborn onto the Piccadilly line.

On the whole, Tube's route calculation is very reliable and is quite difficult to catch out. The only problem I could find is the program's tendency to choose routes involving few line changes. This is certainly favourable during off-peak hours where a wait for a connecting train is likely. However, during the rush hour line hopping is normally the quicker option. Take a journey from Hanger Lane to North Ealing for example: *Tube* suggests a route via Notting Hill Gate and Earls Court, a total of 14 stations with an estimated time of 59 minutes. I was able to do the same journey in 25 minutes going via just 5 stations, taking the Central Line to Ealing Broadway, then the District line to Ealing Common.

As the manual states, *Tube* is not fool-proof. Although it generally comes up with the best route, experienced London Underground users may well be able to find a better way of getting from A to B, especially as *Tube* provides no way to ignore a closed station or to avoid a particularly troublesome line.

Sightseeing

A nice feature of *Tube* is the 'Places of interest' option. A built in database of nearly 90 places has been included, featuring opening times, historical information, and of course the nearest tube station.

On the whole, *Tube* is an excellent and well thought out tool for London travellers, coming complete with pocket sized ten page manual, printout option, and an online help file containing useful contact information. I feel, however, that the price may put it out of reach of the casual tube traveller.

Underground users with access to the World Wide Web may be interested to know that an Internet route planner exists at the following address:

http://www.cs.ucl.ac.uk/misc/uk/london/tube/index.html

This on-screen planner correctly worked out my journey from Hanger Lane to North Ealing as a 22 minute trip through five stations. It informed me of which lines were not operating today, which stations were closed (being a Sunday), gave me the cost of an adult ticket and gave me the average speed of the train! Impressive, but sadly not portable!

Pete Sipple

InfoBOX

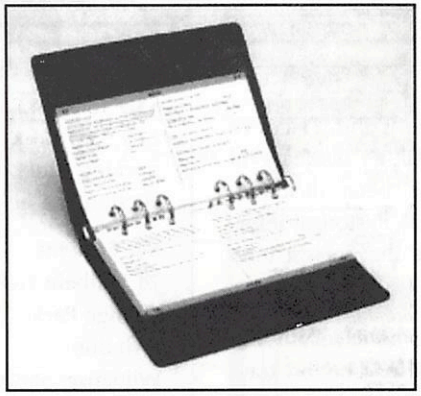
Tube for the 3a is available on SSD for £34.95, or 3.5" disk for £29.95. Add £1.95 for postage & packing (incl. VAT). The latest version can be obtained from:

SW Systems
71 Holbein Field
Grange Park
Swindon
Wiltshire SN5 6DP
E-mail:
swebb@cix.compulink.co.uk

Widget Quick Reference Guide

At one time or another we've all been stumped by a Series 3a application. From installing an icon to creating a spreadsheet graph, there are times when everyone has dived for the User Guide. Now there is a new reference source available in the form of the Widget Quick Reference Guide to the Series 3a.

The guide is produced by Copernicus Training Ltd (who also run Series 3a training courses) and is published by Widget Software in England. It's an attractive and well made filofax-sized guide, with its A5 pages ring-bound in landscape format to enable you to follow the examples easily on your machine with the guide laid open in front of you.



It's smaller than Psion's own User Guide, and has a tough vinyl cove, which makes it more portable and able to survive a little abuse. It lacks the User Guide's screenshots and doesn't give much of an introduction to each application, but then it's not intended to be read from cover to cover—just referred to. If you want to know how to make the Series 3a do something specific then this is for you.

The guide is broken down into sections for each application:

Getting started - A 14 page section taking you through the basics, starting with how to turn on the Psion, setting the date and time, and moving around the system screen. Extras, such as battery installation and screen cleaning can also be found in this opening section.

Data - 16 pages explaining how to find items, edit labels and create new databases.

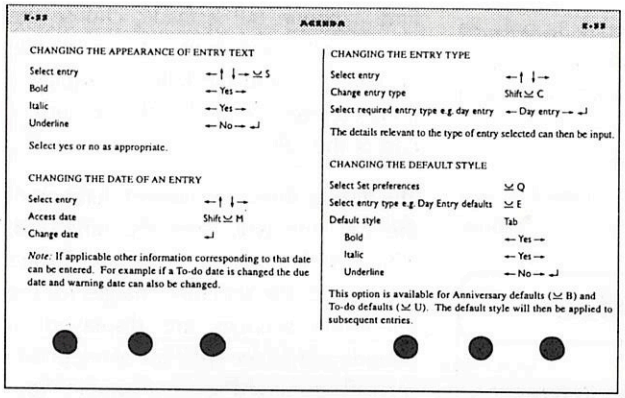
Word - Weighing in at 39 pages, this, for me, was one of the guide's most comprehensive sections. As well as the basics such as cut and paste, readers are talked through the more complex operations of font changing, styles, templates, creating tables and setting tabs. I've always considered the Series 3a built-in help to be a little too vague for getting things done in WORD.

Sheet - This 43 page section may seem a little confusing to readers not familiar with spreadsheets, as this section dives into cell pointers, circular references, financial functions, and then leads into graphs, X/Y axes and table calculation. Heavy going, but if you know what you want SHEET to do, the guide copes well.

Agenda - This is probably the most powerful of the built-in applications, and therefore the guide's largest section at 48 pages. Users pressing the Agenda menu button for the first time may find it a little daunting. There are a lot of options, different screens, and a lot of setup choices. The guide contains no screenshots, which makes this section a little more difficult to follow than the Psion User Guide, but it still works well as a reference tool by walking you through every option.

Time, World, Record, Calc and Dialling - Smaller sections running through the basics.

Disks, Directories & Files - A useful 14 page section which goes some way to explaining how the Series 3a filing system works and discusses topics including directories and copying files.


AGENDA
CHANGING THE APPEARANCE OF ENTRY TEXT
Select entry ←↑ ↓→ ⌘S
Bold ← Yes →
Italic ← Yes →
Underline ← No → ↵
Select yes or no as appropriate.
CHANGING THE DATE OF AN ENTRY
Select entry ←↑ ↓→
Access date Shift ⌘ M
Change date ↵
Note: If applicable other information corresponding to that date can be entered. For example if a To-do date is changed the due date and warning date can also be changed.
CHANGING THE ENTRY TYPE
Select entry ←↑ ↓→
Change entry type Shift ⌘ C
Select required entry type e.g. day entry ← Day entry → ↵
The details relevant to the type of entry selected can then be input.
CHANGING THE DEFAULT STYLE
Select Set preferences ⌘ Q
Select entry type e.g. Day Entry defaults ⌘ E
Default style Tab
Bold ← Yes →
Italic ← Yes →
Underline ← No → ↵
This option is available for Anniversary defaults (⌘ B) and To-do defaults (⌘ U). The default style will then be applied to subsequent entries.

Application Icons - Installing new applications and customising the layout of the system screen.

Printing - Instructions on how to print from each application, as well as a quick guide on connecting and setting up a printer.

Security & Backup - I get the feeling that this section was written in rather a hurry. There are a couple of minor errors, plus a few omissions: for example, readers are told how to backup onto an SSD, but the guide doesn't explain how to restore the files back again!

Overall

Every step of each operation is well laid out and the explanations are generally clear. The guide contains a few useful tips including one of my favourites, the pop-up calendar that appears when the 'tab' key is pressed within a date entry box (try it in TIME's 'set time' dialog if you've not seen this).

On the downside, the writing style does tend to fluctuate in places, leaping from the 'press this, then that' hand-holding, to the techno-speak of a technical manual, but most guides fall foul of this. The lack of screenshots also means that it's not always easy to know what to do if you press a wrong button and end up where you shouldn't. Similarly, although the 'press this to do that' approach gets you there, it doesn't always tell you what the

options mean, or how you've achieved the end result—but then that's not really the job of a reference tool.

Although each section has a contents page, I thought that the lack of an overall index was a little unusual. On the few occasions that I need to refer back to my Psion User Guide I tend to dive straight for the index, rather than scanning the section's contents page.

My general impressions of the guide were good. It's comprehensive, useful and well made. Even experienced Series 3a users will have learned something after referring to this book, but it will be of most use to the beginner who knows what they want to do, but not how to do it.

The Guide covers the Series 3a only, so Series 3 users will be disappointed, as will those looking for a basic introduction to OPL programming.

Pete Sipple

InfoBOX

The Widget Quick Reference Guide is available directly from Widget Software at £24.95 inc. VAT.

Phone: +44 (0)1438 815444
Fax: +44 (0)1438 815222

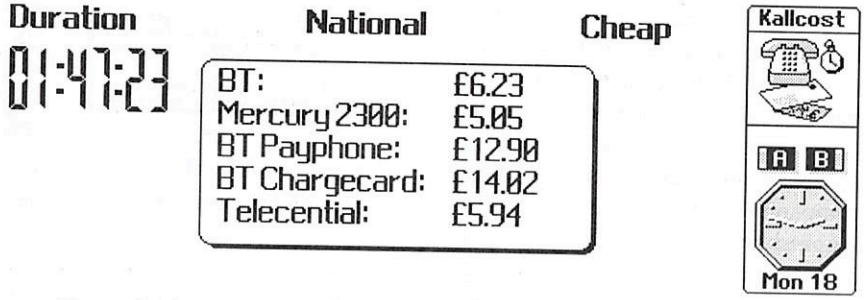
Kallcost

Although competition among the telephone companies is driving down the cost of making a phone call, their advertising campaigns (like the recent 'It's Good To Talk' campaign run by British Telecom) are encouraging more use of telephones, and the bill can still eat a large amount of a household's income. Being able to reduce the bill by even a fraction can save serious money, and this is where *KallCost* comes in. It shows how much a phone call costs (hence the program's name!) with an option to log the details of calls made.

You simply start KallCost running each time a phone call is made, choose the type of call (local, long distance, mobile or whatever) and the KallCost display is updated every second with the current cost of the call.

The display shows the current duration of the call, the type, and the timeband, which is determined using the Psion's own clock. The different charges for the telephone services are displayed in pounds and pence—the list of telephone services displayed is configurable from the 'View Services' option in the main menu, with a maximum of five shown at any one time.

If you're worried about the length of an expensive call you can preset a beeper and flashing warning to alert you if the call exceeds a specified time limit.



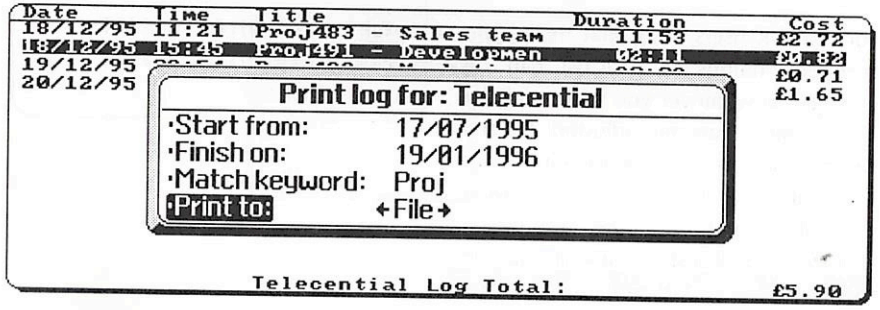
The main timer screen for KallCost, showing call duration and prices

KallCost will operate in the background, so you can use other applications while it is running, or even switch the Psion off completely. When you switch back to the call display the timer and cost are updated to show the correct figures.

KallLog

When you hang up, just hit 'Enter' to stop the clock and you are prompted to enter a call description into KallLog. This logger program records the date and time, duration and description in a database, and allows you to search, print and export the call details in a format suitable to include in a WORD document or a spreadsheet. If you enter meaningful text in the description, KallLog becomes quite a powerful tool for sorting and controlling telephone expenses. It's a very useful companion to KallCost.

Another feature is the cost calculator, which shows the price of a call before placing it simply by entering the estimated duration, and you can choose alternative timebands to see how much you can save by making the call at off-peak hours. Another variant of this calculator allows you to enter the size of a file being transferred via modem (in kilobytes) together with the speed of your modem in a preferences dialog, then KallCost will display the estimated cost to upload or download the file in question.


Date Time Title Duration Cost
18/12/95 11:21 Proj483 - Sales team 11:53 £2.72
18/12/95 15:45 Proj491 - Developmen 02:11 £0.82
19/12/95 £0.71
20/12/95 £1.65
Print log for: Telecential
·Start from: 17/07/1995
·Finish on: 19/01/1996
·Match keyword: Proj
·Print to: ←File→
Telecential Log Total: £5.90

KallLog printing 'Proj' calls

KallCost can handle the various pricing structures offered by most telephone companies, like frequent number and other discounts, minimum charge, charging per second, optional VAT, etc. The basic price rates for UK telephone companies (BT, Mercury etc.) are supplied on the disk. If you have an e-mail facility then you can even obtain an updated 'rates' file from the author and import it into KallCost using the 'Import New Rates' option. Adding new service details, (like a cable TV phone) is fairly painless if you have the manual to hand.

Editing the call rates on a 3a

The built-in help gives seven *aide-memoire* screens. One useful page gives a list of phone company telephone numbers for updating call charge rates. The 44 page manual comes with over 50 screenshots showing all features of the application, although the section on installation from a floppy disk assumes that you have a PC with PsiWin. It would have been useful for users of other machines if the documentation gave details of files and their locations for manual installation.

For non-UK users, note that the phone company names in KallCost can be changed to whatever you wish, and the charge rates can be adjusted to any values. KallCost is therefore suitable for use in any country, with the small caveat that all monetary values appear in '£'.Overall, KallCost is a useful addition to your favourite palmtop—I found the hardest part of using this software (apart from installation) was getting my local cable phone company to give me a list of their current charges!

Rick Andrews

Would you believe it, KallCost is written by our very own Pete Sipple!

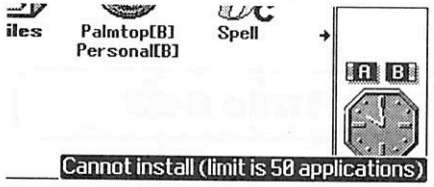
InfoBOX

KallCost version 2 is distributed by Widget Software Ltd, supplied either on a PC floppy disk for £19.95 or an SSD for £49.95 (including VAT). One nice feature of KallCost is that it runs on both the 3a and Series 3 classic machines. On the 3a it uses about 40K of memory when running, with about 42K disk space needed.

Tel: +44 (0)1438 815444
Fax: +44 (0)1438 815222

JBLaunch

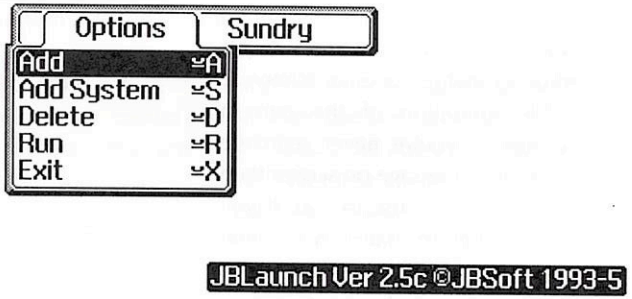
This is a program that 90 percent of users will probably never have a use for, but the other 10 percent will find invaluable. Many people will have no idea that the Series 3 and 3a only allow a maximum of 50 applications to be installed on the system screen. This is to say that you can have no more than 50 icons installed at a given time, and that includes those nested in 'groups' below the 'top level' system screen.



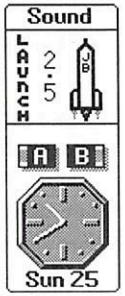
Running on the limit?

In reality, 50 applications represents an awful lot of software, not to mention an awful lot of storage space. Still, some users will find even this a limitation, and without *JBLaunch* the 'power user' is forced to remove some icons from the system screen before installing new ones. This is not as tedious as you may imagine, as it's only necessary to hit 'Psion-/' to remove an icon, then 'Psion-I' to install a new one. JBLaunch neatly removes this little annoyance by placing its own icon on the system screen, then allowing up to a maximum of 49 applications/data files to be subsumed under that icon. You still cannot have more than 50 icons on screen, but it is really just as easy to run a program from JBLaunch's file list as it is from an icon. In truth, it is actually quicker to go to the JBLaunch icon and simply press the first letter of the program name you are looking for than to traverse the system screen in search of the correct icon. As with any program file list, you only have to key in the first letter of the file (or program) name you are looking for, and the cursor jumps you straight to the first occurrence of that letter. If you have more than one program starting with a given letter then it's the work of only a second to scroll down the list to find what you want.

In order to install a program into JBLaunch's list you have to highlight the



The main JBLaunch screen



Accessing programs with their own file list

'!init!' file name at the top of the list under the icon. You can then add applications in the same way as if you had pressed 'Psion-I' from the system screen. This is JBLaunch's only setup screen, and it also allows you to add any of the 3a's built-in programs to the JBLaunch list, delete unwanted programs from the list, and even change a program's name as it will appear in the listing. Finally, if you install any programs which have their own file listings (such as WORD, SHEET, DATA, etc.) you can also tell JBLaunch exactly where to look for its data files. If you try to execute a program with its own file list from within JBLaunch then it pops up an icon with a file list below, allowing you to pick your file to load in the usual way.

This all adds up to a useful and straightforward utility that removes an otherwise immovable limitation of the current Psion design. If you've never seen the 'Cannot install...' message on screen then this program is of no use to you. If you have already been frustrated by the infamous '50 app limit' then JBLaunch is exactly what you need, and as always with John Boyce's programming efforts to date it is also absolutely free!

Steve Clack

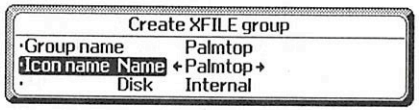
InfoBOX

JBLaunch 2.5 is available from the usual shareware sources as JBL3A.ZIP, is written by John Boyce, and is freeware. The program takes 13K of disk space and runs on the 3a only. An earlier version for the Series 3 Classic is also available, under the filename JBLNCH2.ZIP.

XFile

This program attempts to perform a similar function to JBLaunch, but executes it in a rather different way.

XFile actually creates an OPA (application) file for each new group you construct, then you use the normal 'install' routine to install the icon for the OPA file on the system screen, then just press 'Enter' with the appropriate group icon highlighted in order to run it.

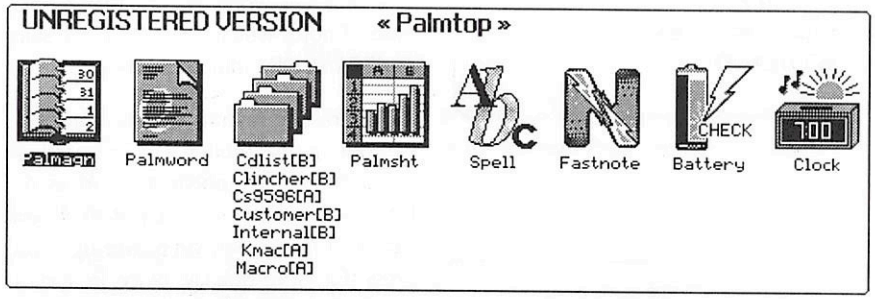


Creating a new XFile group

point the program execution finishes, and it looks as though nothing has happened. In reality, XFile will have created the OPA file for your group, and is waiting for you to install it into your system screen just like any other application.

After installing your group in the usual way, XFile lets you add items to it just like the built-in 'install group' option, but allows a maximum of only 8 items within a single group. This is not a major limitation, as groups can be nested as deeply as you like, therefore each of the 8 icons can take you into an additional group with 8 icons each, and so on.

A neat feature is that you have the option to use an icon other than the one



The maximum 8 icons installed in their very own group

To create each OPA group file you have to run XBUILD (XFile's group creator) from its own icon, where you are prompted for the name you wish to assign to the group, the icon you want to use for it, and whether you want to store the small OPA file onto your internal RAM or onto an SSD in slot A or B. At this

supplied with any given program, and can even use ones embedded into other APP files. XFile also allows you to install OPO files into any group, and assign an icon to them too.

Overall, XFile works very well, and offers a more visually satisfying solution than

JBLaunch, though JBLaunch is more elegant in its simplicity. Both programs are highly recommended, with JBLaunch having the distinct advantage that it's free!

Steve Clack

InfoBOX

XFILE17.ZIP (version 1.7) is shareware, runs on the 3a only, and costs £10 (no cash please), or $20 using GO SWREG (number 5131) on CompuServe.

Contact:

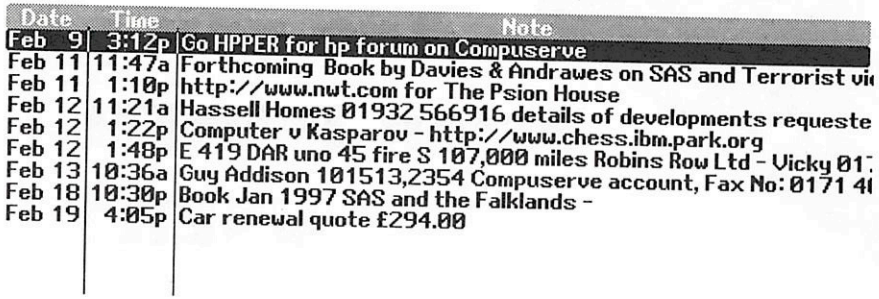
Raymond Stone
Galactic Computing Ltd
27 Golf Road
Cruden Bay AB42 7QF
SCOTLAND

Quiknote

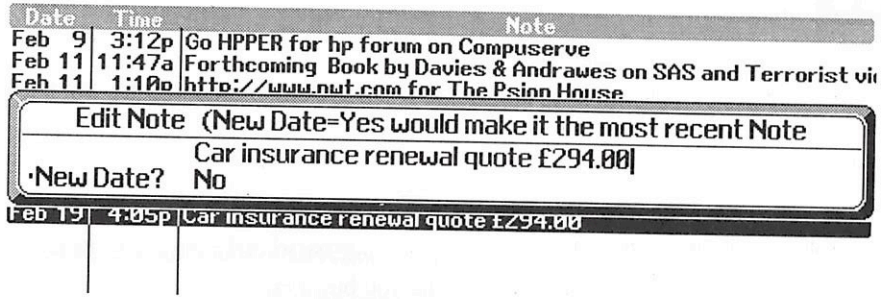
As you might expect, *Quiknote* adds a quick note taking ability to the Psion 3a. The notes are readily accessible with ease and speed of use being the program's main plus points. Notes are shown in a list format sorted by date so they can be quickly scanned for either reading, editing or deletion.

The program itself is only 10K in size and uses a miserly 17K of system memory when running. It's easy to install, comprising the application file, the starter database file and the optional manual in Psion WORD format. Built-in help is included in the form of a menu of functions and shortcut keys which are displayed when the 'help' key is pressed. The program works by creating a database of notes which are held in the standard Psion DBF (database) format.

An interesting feature of Quiknote is its two operational modes. The program can either be set to appear as soon as the Psion is switched on, or alternatively you can set it to run only on power-up if you press 'Esc' (on) quickly, twice in succession as soon as the machine is switched on. This mode works only if the 3a's built-in startup password feature is disabled. If the first option is selected then pressing 'Esc' twice will take you back to the program you were using before you switched off—a nice touch considering that you're most likely to need the program when you're in a hurry. Each time you switch to or access the


Date Time Note
Feb 9 3:12p Go HPPER for hp forum on Compuserve
Feb 11 11:47a Forthcoming Book by Davies & Andrawes on SAS and Terrorist vi
Feb 11 1:10p http://www.nwt.com for The Psion House
Feb 12 11:21a Hassell Homes 01932 566916 details of developments requeste
Feb 12 1:22p Computer v Kasparov - http://www.chess.ibm.park.org
Feb 12 1:48p E 419 DAR uno 45 fire S 107,000 miles Robins Row Ltd - Vicky 01
Feb 13 10:36a Guy Addison 101513,2354 Compuserve account, Fax No: 0171 4
Feb 18 10:30p Book Jan 1997 SAS and the Falklands -
Feb 19 4:05p Car renewal quote £294.00

The main overview screen in Quiknote


Date Time Note
Feb 9 3:12p Go HPPER for hp forum on Compuserve
Feb 11 11:47a Forthcoming Book by Davies & Andrawes on SAS and Terrorist vi
Feb 11 1:10p http://www.nwt.com for The Psion House
Edit Note (New Date=Yes would make it the most recent Note
Car insurance renewal quote £294.00
New Date? No
Feb 19 4:05p Car insurance renewal quote £294.00

Editing or entering a note

program you are conveniently presented with the data entry screen in order to directly enter a note, which can be anything up to 255 characters long.

Editing long notes can be difficult, as text is only shown on one line and you have to scroll to the beginning or end of the text as necessary. The list of notes cannot be printed out, but this can be overcome by using the standard Psion DATA application and its own print functions.

Andrew Holmes

Note: This software is in no way connected with Andrew Baldwin's program of the same name as featured in the current Programmers' Workshop - Ed.

InfoBOX

Quiknote version 1.01a is shareware, registration costs $10US. The filename is QUIKNT.ZIP. It runs on the 3a only.

Are you a Psion POWER USER?

Here's another idea that fell out of my brain onto my Psion the other day...

Are you a palmtop power-user? Take this simple test and find out. Award yourself one point for each question you answer with a 'Yes'.

1. Do you have a designated pocket, holster or case for your Psion?
2. Does your Psion have a name?
3. Do you often find yourself halfway out of the room when you have to turn back to pick up your Psion?
4. Do you take your Psion into the bathroom?
5. Have you had at least four shareware applications on your machine in the past year?
6. Have you registered at least two of them?
7. Have you had to buy a 512K or larger SSD or a bigger Psion because you ran out of storage space?
8. Have you customised the layout of your AGENDA?
9. If your Psion were to be stolen or broken, do you think you would need to buy a new one within two days?
10. Do you keep your *own* birthday on your Psion?

SCORING

1-3 points: Not to sound rude, but why did you buy a Psion?

4-6 points: Not bad, but could do better.

7-8 points: Yep, you're a power-user. No two ways about it.

9-10 Points: Good grief! Psionites everywhere salute you! Everyone else probably thinks that you should get a life...

P.S. - the author scored 9...

Toodle-Pip!

Steve Murgan
Louisville, Kentucky, U.S.A.

Okay, so I scored a 9 too. But does anyone *really* have a name for their Psion? A free issue will go to the most interesting or ridiculous one - Ed.

Programmers' Workshop

by Andrew Baldwin

Quiknote - 'Build an Application' (Part 2)

The second installment of our three part series teaching you how to write a *real* application in OPL.

Fleshing out the bones

If you read the first part of this series in the last issue you should now have the bones of the *Quiknote* program up and running. In this part we're going to provide the basic functionality for the program in the form of data file handling, and the interface to add a new note.

Handle that file

When designing the program, we decided that we were only going to have one data file with the same name as the program. The implications of this are that when the program runs, it must first look for this file. If the file exists, then the program opens it (using the `OPEN` command), otherwise it creates a new file (using the `CREATE` command). This functionality is all encompassed within the `qndinit:` (**Q**uiknote **D**ata **INIT**ialisation) procedure as follows:

```
PROC qndinit:
REM Called to open or create the data file
    LOCAL file$(128)
file$="\DAT\Quiknote.dbf"
```

```
IF EXIST(file$)
      TRAP OPEN file$,A,subj$,categ$,date$,t1$,t2$,t3$,t4$
      qnerr:
   ELSE
      TRAP MKDIR "\DAT"
      TRAP CREATE file$,A,subj$,categ$,date$,t1$,t2$,t3$,t4$
      qnerr:
   ENDIF
ENDP
```

There are a couple of points to note here. Firstly, the data file we create has 7 fields (areas within each record to store information). These correspond to a *Subject*, a *Category*, a *Date*, and four lines of text (`t1$` to `t4$`).

Secondly, both the `OPEN` and `CREATE` commands are called under the protection of a `TRAP` command. The prevents any errors (a file error, for instance) from interrupting the running of the program. Instead, in the case of an error, the `ERR` value is set to a non-zero value. The program then calls the `qnerr:` procedure as follows:

```
PROC qnerr:
REM Called to check for an error
   IF ERR
      ALERT(ERR$(ERR))
      STOP
   ENDIF
ENDP
```

This simply checks if an error occurred, and if it did, reports it to the user and halts the running of the program.

You may be wondering why we bother doing this at all if the program would have stopped anyway. Well, the advantage of this method is that by altering the `qnerr` procedure we could selectively ignore certain errors, or attempt to recover from non-fatal errors without loss of user data.

In practice, *Quiknote* is such a simple program that this is unnecessary for us.

Let's get adding

And now we come to the heart of the program—the note adding routines. The most important part of this is the `qnadd:` procedure, the hook of which we already have.

This procedure now becomes as follows:

```
PROC qnadd:
REM Called to add a new note
   GLOBAL sub$(255),cat$(255),ent$(4,255),ret%
   qngetcat:
   qngetsub:
   IF ret%=0
      GOTO end
   ENDIF
   qngetent:
   IF ret%=0
      GOTO end
   ENDIF
   A.subj$=sub$
   A.categ$=cat$
   A.date$=DATIM$
   A.t1$=ent$(1)
   A.t2$=ent$(2)
   A.t3$=ent$(3)
   A.t4$=ent$(4)
   APPEND
```

```
    gIPRINT "Note added"
    RETURN
end::
    gIPRINT "Note add aborted!"
ENDP
```

This simply asks the user for a new note, and if the user supplies correct information and doesn't abort by pressing the escape key, then it appends the note onto the end of the data file. Simple, but there are a number of OPL principles involved here. Let me go through them:

Firstly, notice that the procedure declares a number of strings as GLOBAL variables rather than LOCAL ones. The reason for this is that any procedures called by qnadd will have access to these variables and will be able to alter them. This means that the data entry code can easily be moved out to other procedures, making the structure easier to follow. It also means that the variables will only exist for each call of the procedure, rather than if we had declared them at the beginning of the program.

Secondly, notice that at two points before the data is added, the add can be aborted by the variable ret% being set to zero.

Finally, notice the method in which we add the data. The information the user enters is set into the data file fields. The fields are treated as if they were just variable names preceded by the file handle A (there are 4 possible data file handles, A to D, but we told the program to open this file as A when we did the OPEN and CREATE commands). In other words the subject field is A.subj$, and the same goes for the other fields. Once all the data is assigned to fields, the APPEND command creates a new record on the end of the data file containing the data in each field.

One last thing to note is that the A.date$ field is automatically supplied with the current time and date for this entry by means of the DATIM$ command.

As you should be able to tell, there are three more procedures that qnadd: calls in order to get the user's information. This first of these is qngetcat: as follows:

```
PROC qngetcat:
REM Called to get the offered category
```



```
    IF COUNT=0
REM If file empty, offer a default category
        cat$="Ideas"
        RETURN
    ENDIF

    LAST
    cat$=A.categ$
ENDP
```

The category field is something that allows the user to show that groups of notes are related by giving them the same category of text. This procedure is very simple. If this is the first note in the file, it supplies a default category of 'Ideas', otherwise it checks the previous note (using the LAST command) and retrieves the category that was used for that one as a default.

The second procedure called by qnadd: is qngetsub:, which is designed to get the user values for the subject and category (although it initially offers the category value as returned by qngetcat:). The procedure is as follows:

```
PROC qngetsub:
REM Get the subject and category from the user
    LOCAL choice%

    LOCK ON
    dINIT "Add a note"
    dEDIT sub$,"Subject:"
    dEDIT cat$,"Category:"
    ret%=DIALOG
    LOCK OFF
ENDP
```

It simply displays a dialog with a title and two text edit lines. There are a number of subtleties to be noted: firstly the use of the LOCK ON/OFF commands surrounding the procedure. When a program is locked, it cannot be sent a shutdown message from the system screen. During the dialog, there is no way the program could respond to such a message—which could cause nasty effects. Strictly speaking, the LOCK commands should actually be surrounding the qnadd: procedure, since during the whole procedure (including the three sub-procedures) there is no way for the program to respond to a shutdown. In practice such a message would only be sent during one of the dialog commands, since these take far longer to complete than the rest of the code.

The second thing to note is the 'ret%=DIALOG' line. On completion of the dialog, ret will contain the line number the user pressed Enter on, or else zero if they press escape. Look back to qnadd: and you will see that if ret% is zero after this procedure it causes the qnadd: procedure to terminate, which is what the user would expect after pressing escape.

The third qnadd: sub-procedure, and indeed the final procedure of this second version of the *Quiknote* program is qngetent: as follows:

```
PROC qngetent:
REM Get the entry for the note
   LOCAL title$(35)
   title$="Note entry: "+LEFT$(sub$,20)+CHR$(1)
   LOCK ON
   dINIT title$
   dEDIT ent$(1),""
   dEDIT ent$(2),""
   dEDIT ent$(3),""
   dEDIT ent$(4),""
   ret%=DIALOG
   LOCK OFF
ENDP
```


As before, this simply displays a dialog containing a title line and 4 text entry lines. The first line after the local declarations builds a title line made up from the 'Note entry:' followed by a copy of the previously supplied subject line (truncated if necessary). The CHR$(1) command on the end simply appends an ellipsis character (three dots).

Make sure you have typed in all the procedures as given, replacing or filling in any currently empty procedures of the same name with the new code if necessary. If you have any errors when you translate, check where the errors are and make sure you have typed that part in correctly.

Once you have got the program to translate with no errors, make sure it is installed on the system screen and then run it.

It may surprise you to see just how much more the program now does—in fact apart from a few details, the program is almost finished. The only real gripe is that to see your notes you must exit the program and select the *Quiknote* file under the data application list. Well, we will fix that with a little trickery in the last part of the series in the next issue...

Andrew Baldwin

Editor's Note

The typeface used in the last issue's Programmers' Workshop unfortunately seems to have caused some confusion. In the small text size used an 'l' (a lower case 'L') looked very much like a '1' (the number *one*). Some readers thus took the variable name 'l$' (L-string) to be '1-string' (one-string), and therefore got an error message when trying to translate the procedure.

In order to minimise this problem I have now increased the typeface size for all program listings in order to make the characters clearer.

I'm sorry if the previous typeface caused frustration to would-be programmers - Ed.

Notepad 5.41

Following on from the in-depth review of Notepad 5.21 in the last issue, Graham Foster gives us an update on the latest upgrade, version 5.41...

Since the last issue of Palmtop went to press, Pelican Software's popular *Notepad* software has undergone another significant revision. In the interest of keeping readers up-to-date on such significant products as this we feature a brief summary of what's new...

New Features:

Map Mode: a graphic map of the interrelationships between notepads has now made its long awaited appearance. Currently this has been implemented by WOsoft, and provides a useful way to navigate complex trees of notepads. Much of the 'whole notepad' functionality of Notepad (e.g. copying, pasting moving and deleting of notepads) could usefully be moved into the Map mode, but this may be included in a future release.

Newlines and larger notes: one of my previous criticisms was that 'newline' was not available within a notepad entry. This has now been included, and in my opinion is a great advantage. Also the length of a notepad has been increased to over 1000 characters.

Outline Mode: as part of the ability to have newlines in notepads an outline facility has been added into the text editor, allowing a choice of bullet, hyphen or numeric outline tags.

Notepad Titles: notepads now have titles. This means that the first line of a notepad's text no longer needs to be visible, and can replaced in the notepad hierarchy by its title. This provides grouping for items in a single notepad (e.g. Title:- 'notepad queries...' could contain several separate items in a single notepad page).

Autonaming notepads: for those of us lacking in creativity for filenames, Notepad can now auto-name an expanded notepad. In the preferences/files you can now set notepad not to prompt you for a new notepad name—it will just create one by itself. Notepad tries to come up with a name using text from the note or title.

Use of icons: to indicate which sort of application it is linked to makes the interface clearer, by highlighting the type of link before the application is launched.

Datalink: there is a new extension to the data file link, and text can now be embedded into the link. Practically, this allows (for instance) a link to a data file to search for the phone number of a supplier. The child notepads can therefore detail the contacts with a supplier, and the top level supplier's number is easily referenced.

Supports Dataview/DataView Pro and DataDeluxe: previously Notepad only worked effectively with the internal DATA application. Pelican Software have now extended Notepad to work correctly with these commercial applications. (Note: there is no link to JBData at this time.)

Psiprint: Notepad now works correctly with Psiprint and also provides a print preview facility, working exactly like 'print preview' in the built-in Psion applications. Printing now uses the ROM printer drivers and prints the whole note.

Project Viewer: this has been extended to allow the display of up to 10 'project' dates per day in this view.

Dates: calendar now uses the in-built Psion date function, so a whole year at a time can be easily viewed and navigated.

Links to Ecco Pro: Notepad can now export data to Ecco Pro, a PC-based PIM.

Find All: now highlights the found item after opening the notepad, and searches the Archive.

Server: (the Alarm server and SoundOff facilities) are now at version 1.7, and some earlier bugs have been fixed. Alarms can now be automatically disabled (rather than deleted) from Notepad.

In summary there have been many extensions to Notepad, making v5.41 more powerful and integrated than ever before.

Graham Foster

Notepad contact details:

Pelican Software
PO Box 741072
Houston, TX. 77274-1072
U.S.A.

Tel: +1 713 242-8928
Fax: +1 713 242-9573

E-mail: mespo@aol.com (preferred)
or mesposito@cix.compulink.co.uk
or 72662.3050@compuserve.com

The SSD Alternative...

At last an independent supplier has broken into the SSD market. Could this be the start of a promising new trend...

by Steve Clack

Until now, Psion have had a monopoly on Solid State storage disks (SSDs). Now, however, there is another... The UK-based *Exportech* can offer the following SSDs for the Series 3 (system version 1.9 and above only) and for any 3a:

RAM CARDS

2 Mb	£395
4 Mb	£659

FLASH CARDS

8 Mb	£459

If you would rather upgrade your existing Psion SSD, then the following options are available:

RAM UPGRADES

128K	to	256Kb	£76
128K	to	512Kb	£182
512K	to	1Mb	£154
512K	to	2Mb	£305
512K	to	4Mb	£605
1Mb	to	2Mb	£289
1Mb	to	4Mb	£559

FLASH UPGRADES

128K	to	256Kb	£26
128K	to	512Kb	£63
128K	to	1Mb	£76
512K	to	1Mb	£53
1Mb	to	2Mb	£92
2Mb	to	4Mb	£160
1Mb	to	4Mb	£195
4Mb	to	8Mb	£265
2Mb	to	8Mb	£335
1Mb	to	8Mb	£367

All prices exclude VAT, postage and packing.

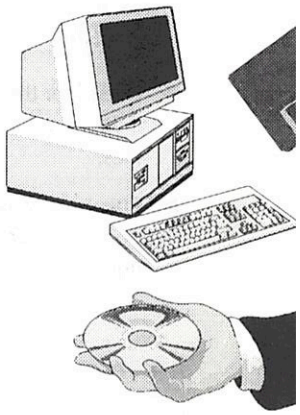
Please note that in the case of upgrades your original guarantee will be rendered invalid, though Exportech offer their own one year guarantee. Normal turnaround time is claimed to be approximately three weeks from receipt of your disks.

I have tried out one of the 8Mb SSDs for a few days myself, and it appears to work just like any standard Psion SSD. I can't vouch for the internal construction quality, but Exportech claim that they have had no reliability problems.

Exportech will ship worldwide.

Tel: (+44) 181 682 3313
Fax: (+44) 181 682 4414
E-mail:100121.1165@compuserve.com

Shareware—What, Where & How?



by Pete Sipple

In the last issue of *Palmtop*, 'It's not a filofax!' hopefully gave a brief insight into the benefits of connecting your 3a to a larger computer, including what the world of shareware can bring to your Psion. In this article I take a look at the world of Shareware: what's available, where to find it, and how to work it...

Psion Shareware—what is it?

Photographers, accountants, astrologers, doctors, pilots, engineers, musicians, radio hams—whoever you are, whatever you do, business or leisure, there's bound to be a program out there that will help you to do what you do on a Series 3a. Shareware is released daily, and quickly distributed around the world. If you've not yet dipped your toe into the world of shareware then I'd recommend that you do so. It's rewarding, informative, and not quite as difficult as you may at first imagine.

Where do I get it?

Here are the key sources of shareware:

Mail Order (*3-Lib*)

If you don't fancy making use of a modem to get at Psion shareware then you'll probably want to get in touch with *3-Lib*. Run by Steve Litchfield, *3-Lib* is a comprehensive source of all the available shareware from around the world. The best of the shareware collection can be supplied on 3.5 inch disk, or selected files can be copied onto a supplied SSD for those without a *3Link*. *3-Lib* is an excellent way of breaking in to the shareware scene. See page 9 of this issue for more details on how to get more information on *3-Lib*.

If you live outside the U.K. then don't despair, *3-Lib* can still send software to you—just contact Steve Litchfield for more details.

These are some of the major benefits of using *3-Lib*:

- Useful for those without a modem, or if you don't fancy downloading lots of files.
- The only way to access files if you don't have access to a computer with floppy drive and *3Link* hardware.

InfoBOX

Requirements: **Computer with 3.5" floppy drive and 3Link hardware. Alternatively, one SSD.**

Cost: **£10 for 4 1.44Mb disks, £12 for 8 720K disks. Between £14 and £34 for SSDs.**

```
Series 3a utilities

==================

jbtr424a.zip   33807   S3a - File manager - 03May1995

ptimer2.zip    2627    S3a - darkroom timer utility - 10Aug1995

reader22.zip   56064   S3a - Text readers from the Internet -
                       17Aug1995

jblaun25.zip   12874   S3a - Launcher for S3a with Accessories
                       2.5c - 11Aug1995

jbback11.zip   14575   Backup that also Closes/Reopens
                       files(v1.1b) - 11Aug1995

move.mcr       2941    A macsys macro to relocate files -
                       28Jul1995

clock.zip      7771    S3a - An Alarm Clock - 12Jul1995

4time2.zip     4678    S3a - another timers utility - 08Jul1995

formtns.opa    4608    S3/3a - Formula translator - 22Jun1995

calcvat.zip    2490    S3a - Freeware VAT calculator - 22Jun1995

timeoff.zip    3035    S3a - Self switching off timer - 17May1995

sysmem.zip     436     macro - show system memory usage on 3a -
                       12May1995

font160.zip    20331   S3a - Font editor - 06Apr1995

xfile12.zip    12813   S3a - Application launcher - 18Mar1995
```

An example showing part of a typical shareware file list

Online services (primarily CompuServe and CiX)

The full benefits of membership to an on-line service were discussed way back in issue 1 of *Palmtop*. In summary, this is the probably the best way to get access to the file you're looking for. Updates are posted by software authors on a frequent basis, and files from all around the world can be accessed quickly. The software supplied by the service provider is user-friendly, and the facility to 'chat' and post questions and comments to other Psion users can be useful if you need help with installing and running files.

InfoBOX

Requirements (with full sized computer): **modem (ideally 14,400 bps or faster), software available from the service provider, plus *3Link* hardware.**

Requirements (with Psion only): ***3Fax*****, or a modem and *3Link*. Software: ReadCIS or ReadCIX (both shareware).**

Costs: **£25-£30 one-off signup fee, upwards of £5 per month usage, plus telephone calls.**

Contact: **CiX (primarily for U.K. users): 0181-390 8446**

CompuServe (available world-wide): 0800-289458 in U.K., or check in your own country.

Accessing CompuServe or CiX with only a Series 3a is less friendly than with a full blown computer, but is perfectly feasible nonetheless if you use the excellent ReadCIS or ReadCIX shareware programs.

Overall, online service providers offer you these benefits:

- Access to huge file lists, updated frequently.
- Discussion forums for chat and advice.

Bulletin Boards (BBS')

- Similar to CiX and CompuServe, but much smaller and cheaper.

Bulletin Boards vary in size and quality. Whilst they tend to lack the resources and hardware of their larger brothers, many of them are a surprisingly good source of Psion-related material.

Many BBS operations tend to be run from home, with between one and three modems connected, which means the engaged tone can be a common and frustrating sound. To get around this, some services limit your daily access. Always check the membership conditions before committing yourself. If you feel you may spend a lot of time online, you may be better off with a larger provider. One BBS with a strong emphasis on Psion files is *Datalink*, run by Francis Creese in the U.K. Francis is often available for an on-line chat, and will he happily let you have a month's trial of the BBS before you decide

whether to pay the £20 annual subscription fee, which allows unlimited access to the bulletin board.

InfoBOX

Requirements: **As for Cix and CompuServe, but no special software is needed—just a basic terminal emulation package (supplied free with the *3Link*).**

Price: **Varies considerably. Some are free, some up to £75 per year, plus telephone calls.**

Contact:

Datalink +44 1202 660838 (from your modem.)

Plus many others worldwide.

The Internet

► Lots of files. Very useful for Psion users familiar with using the Internet from their computer.

Accessing the Internet requires a fair bit of computer knowledge, a reasonably fast modem, and patience. Having said that, the amount of information available is huge. Users can also access e-mail and the World Wide Web. Files can be downloaded from many of the WWW pages, or direct from the two main FTP Psion sites:

http://src.doc.ic.ac.uk/packages/psion/icdoc/

ftp://ftp.frontiernet.net/pub/psion/

A review of these sites, plus a more comprehensive article on what's available on the Internet will follow in the next issue of *Palmtop*.

The Internet and the World Wide Web can be accessed from a Series 3a, but the procedure for making this work is pretty involved, and not for the faint hearted!

InfoBOX

Requirements: **Computer, modem (ideally 14,400 bps), *3Link* . Software available from the service provider's FTP site.**

Costs: **Vary. Around £10 per month, plus telephone calls.**

Contact (in U.K.):

Demon: 0181 3711234

Delphi: 0171 7577150

Pipex: 01223 250120

Numerous others worldwide.

CD-ROM

Two CD-ROM disks full of shareware are currently available from sources such as Widget Software. A review of one of these CD-ROMs can be found in issue 4 of *Palmtop*, and the other will be evaluated in issue 7. Whilst the disks contain lots of files, the fast changing nature of shareware means that many of the files quickly become out-of-date.

► Contain a lot of data in one single source. Convenient for CD-ROM users. Price: Around £40 each.

InfoBOX

Requirements: **Computer with CD-ROM drive capable of reading PC format CDs plus *3Link* hardware.**

Contact (U.K.):

Widget Software: 01438 815444

or major Psion dealers worldwide

How to make it work

If you don't own a Psion *3Link* or Acorn *A-Link* then you don't need to read this section. The only option open to you is to get your shareware from *3-Lib*. Mail an SSD, plus payment, to *3-Lib*, listing your requirements, and the SSD will be sent back to you with the work done. The files will be in a ready-to-run state.

For those with a serial link, there are three steps to getting shareware to run: unpacking, transferring and installing. There is software to allow this to be done for just about any type of computer, including the Atari, Archimedes, and Amiga, as well as the two most common computers, the PC and the Apple Macintosh.

Once you've selected a program that you're interested in you need to load it onto your Psion. If you're downloading your program via a modem it will appear in a directory or folder on your computer's hard disk, otherwise, the files will be on floppy disk or CD-ROM.

Unpacking the archive file

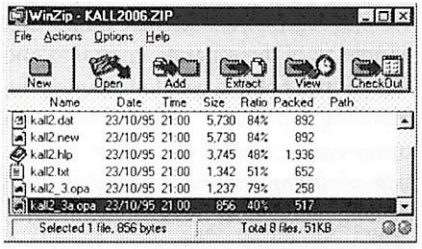
Most shareware programs have more than one file attached to them: for example, in the case of a shareware utility, there may be three files: 1) the program itself, 2) a data file and 3) the program documentation. To keep all of the files together the software author will bundle all of the separate items into one file, so that nothing gets lost. During the bundling process, the files are compressed, having the added advantage of saving space on your disk, and making download time smaller. This process is called *archiving* or *zipping*. If you see a filename with a '.ZIP' at the end, i.e. 'NOTEPAD.ZIP', then that's an archive file containing everything needed to make that software run. ZIP is the most common archiving method out there, but there are others. You may encounter any of the following: '.ARC', '.ARJ', or '.LHZ'.

To get at these archived files, you'll need to un-bundle them using an unpacker program. Various programs are available depending on the type of computer you

use. The following programs are the most common ones for unpacking ZIPs. You may need to ask around for the names of an unpacker suitable for your machine and/or compression format.

- Series 3/3a - *S3UNZIP*.
- PC running DOS - *PKUNZIP.EXE*.
- PC running Windows 3.x / Windows 95 - *WINZIP*.
- Macintosh - *ZipIt* or *Stuffit Deluxe*
- Amiga - *UNZIP51X.LHA*.
- Archimedes - *SparkFS* or *SparkPlug*.

The unpacker programs too, are usually shareware, and available from the same sources as the Psion shareware.


WinZip - KALL2006.ZIP
File Actions Options Help
New Open Add Extract View CheckOut
Name Date Time Size Ratio Packed Path
kall2.dat 23/10/95 21:00 5,730 84% 892
kall2.new 23/10/95 21:00 5,730 84% 892
kall2.hlp 23/10/95 21:00 3,745 48% 1,936
kall2.txt 23/10/95 21:00 1,342 51% 652
kall2_3.opa 23/10/95 21:00 1,237 79% 258
kall2_3a.opa 23/10/95 21:00 856 40% 517
Selected 1 file, 856 bytes
Total 8 files, 51KB

WinZip for Microsoft Windows

Getting an unpacker loaded onto your machine and getting it to work is probably the most difficult part of the whole process. There are far too many archive formats and unpacking programs out there to do a full description of how to handle all of them. Your best bet is to either ask around, or read the documentation supplied with the unpacker software.

Users with *Windows* and a *3Link* should look out for *Winzip*, which handles the job very well, especially if the file was archived with the directory names too. The point and click options make life a lot easier than its DOS and Psion counterparts.

In the case of the DOS software PKUNZIP, the format from the DOS command line is:

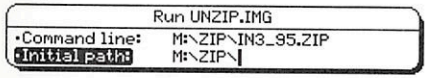
C:\UTILS\PKUNZIP xxxxx.ZIP C:\TEMP\

(where the unzip program is in your C:\UTILS\ directory and you wish to extract xxxxx.zip into a C:\TEMP\ directory.)

The excellent *ZipIt* shareware for the Apple Macintosh allows similar drag-and-drop simplicity to *Winzip*, with no need to get to grips with complex command line switches.

S3UNZIP is, at present, your only choice if you don't have access to another machine. This program runs on a Series 3 or Series 3a. It includes instructions on how to install it, but ironically is normally found in a ZIP file, which creates a catch 22 situation—you can't unzip the unzipper without an unzipper! If you're in that situation then you need to search for the individual elements. You need to create a \RUN\ directory and copy UNZIP.IMG there, copy RUN.APP into an \APP\ directory, then install it on the system screen by keying 'Psion-I'. The file RUN.DOC gives brief notes on installation.

To unzip software you need to tell your unzipper the name of the file that you wish to unzip, and where you want the unzipped files to go:



Whilst unzipping, a screen appears showing you what's happening...

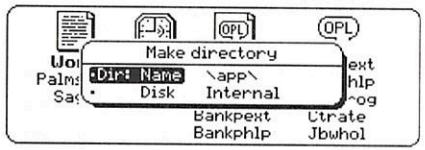
```
Inflating: LOC::M:\ZIP\_mstest.ex_
Inflating: LOC::M:\ZIP\in3.in_
Inflating: LOC::M:\ZIP\in3.ms_
Inflating: LOC::M:\ZIP\mscomstf.dl_
Inflating: LOC::M:\ZIP\mscuistf.dl_
Inflating: LOC::M:\ZIP\msdetect.in_
Inflating: LOC::M:\ZIP\msdetstf.dl_
Inflating: LOC::M:\ZIP\msinsstf.dl_
Inflating: LOC::M:\ZIP\msregdb.in_
```

Your aim is to unpack all of the files from the ZIP archive into a temporary directory where you can read the documentation supplied with the shareware, and copy the files to your Series 3 internal directory.

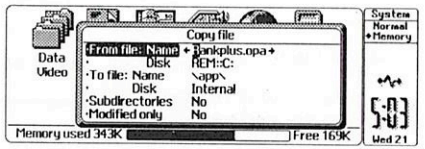
Once successfully unzipped, the first thing you need to do is look for a text file, which should tell you how to install the software onto your Psion. This is often called README.TXT or <filename>.TXT The information contained in that file should be all you need to get the program up-and-running, though sometimes the information provided is a little vague.

Transferring the files

To copy files from machine to machine, you need the *3Link* (the *A-Link* if you have an Acorn Pocketbook), plus appropriate software. This was discussed in issue 5. There are various programs to get the files onto your Psion, but you need to make sure that they all end up in the correct directories. The text file supplied with the software should tell you where to put the files. Unless told otherwise, it is normal to assume that the files should all go into the same directory. If in doubt, try the \APP\ directory. If a directory doesn't exist, then you need to create it, using the 'Make Directory' command from the Series 3/3a System screen (hold down 'Psion' and press the '+' sign).



The files should then be copied into the appropriate directories.



Installing the program

Once the files have been copied over to the Psion, they then need to be installed. There are two type of programs, and they are each installed in different ways:

- **APP or OPA files** (which live in the /APP/ directory). To install the program, select 'Install' from the system screen menu, and then use

the cursors to select the program to install. Once installed, highlight the name, and press 'Enter'.

- **OPO files** (which live in the /OPO/ directory). These appear under the *RunOpl* icon (the speech bubble).

If the icon is missing, you will need to reinstall RunOpl using 'Install Standard' from the system screen menu. To run the program, highlight it, and press 'Enter'.

All being well, the software is now running and you have installed your first piece of software. If the software doesn't start, or falls over with an error, then the chances are that you've installed something into the wrong directory. Check back through the '.TXT' file and make sure every file is where the documentation says it needs to be.

Shareware rules

Remember, shareware isn't usually free. A lot of time and effort goes into writing shareware, and the authors often request payment. If you find a piece of shareware useful, then check its documentation or the help file to see what the author wants by way of payment. Registration with the author normally means that you'll be able to get hold of the most current version of the software, or be kept up-to-date with developments. Some shareware is restricted or has a 'please pay me!' message. Once registered, a code is normally supplied to unlock all of the functions, and to remove any nagging messages.

Have fun!

Pete Sipple

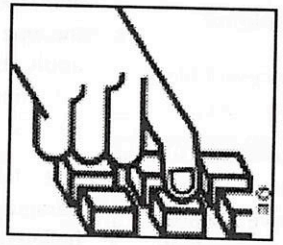
Getting to grips...

Working with WORD

By Steve Clack

The first part of a regular feature aimed at the relative beginner to the Series 3a's built-in programs. For the next few issues we'll be looking at WORD, the 3a's capable little writing tool...

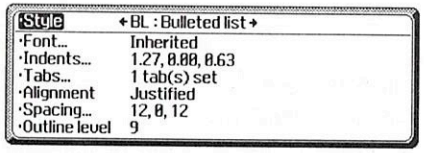
When compared with equivalent packages on a desktop computer, the word processor built into the Series 3a probably comes closer in terms of functionality than any of the other Psion applications. As is so often the case with the 3a the size of the machine belies the computing power concealed within, and the 3a word processor is *not* a glorified 'notepad'—make no mistake.



In most cases the usage of the 3a as a word processing tool will be limited more by the inconvenience of typing on a small keyboard than by the features of the program itself. I have to confess that as much as I love my 3a, I still try to avoid typing lengthy documents with it—preferring to use a laptop or full-sized keyboard. Being able to touch-type on a standard keyboard allows the creative juices to flow without even thinking of what you are typing, as the words just 'appear' almost without conscious effort. Some people claim to be able to type at quite fast rates on the tiny 3a keyboard, but even so the requirement to actually look at the keyboard while typing will always distract touch typists from the writing process.

So, the 3a may not be the ideal journalist's or author's tool, but for anyone

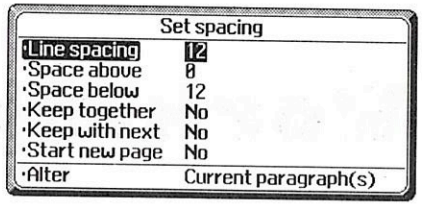
wishing to write letters, reports or memos it can be the ideal solution. As always the sheer portability of the 3a is one of its major strengths, and I have certainly written more than one article for *Palmtop* while sitting under a tree in the park—somewhere I would never consider taking a laptop computer. Over the next few issues this article will take you through the major features of WORD, and explain how to make it do what you want. In order to set the scene a little it will be useful to summarise some of the features and limitations of the package before we start, lest some of you are planning to attempt something just *too* complex with this generally capable piece of software:



Defining a text style

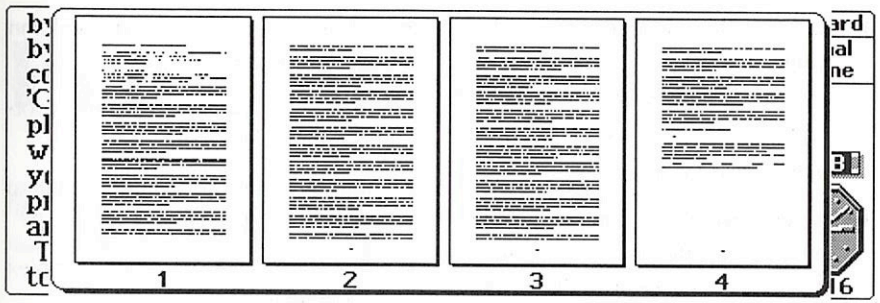
Here's what you *can* do with it:

- Create as many word processed files as you like (subject to disk space).
- Spell check your documents for errors, and use the built-in Thesaurus to look up alternative words (synonyms). These features are built into the 1Mb and 2Mb 3a machines. If you have a 256K or 512K model then the *Spell Checker & Thesaurus* is available on ROM SSD for under £50. This is an excellent and worthwhile purchase for anyone who spends a lot of time working with words, and you can get more information about it in the review on page 10 of the first issue of *Palmtop*.



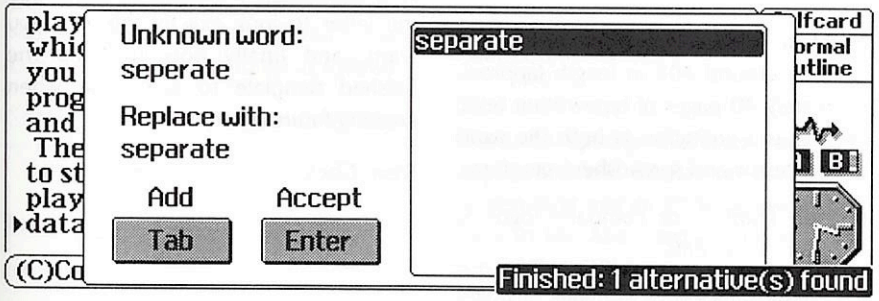
Fine tuning of lines and paragraphs

- Move words, chunks of text, or whole paragraphs around the document and generally rearrange things to your liking.
- Search for any piece of text within your document and replace every occurrence of a given word or phrase with something else (for instance, to change every appearance of 'John Smith' to 'Mr J.T. Smith'.)
- Choose your preferred typeface style and size for documents (limited by the type of printer you are using), and apply bold, italic, underline and subscript/superscript attributes to any parts of text that you choose.
- Use 'tabs' and 'indents' to adjust paragraphs, create numbered or bulleted lists, or to create tables of information or figures.
- Align the text to the left, right or centre of the page, and 'justify' the lines so that they always come neatly to the end of a column.



Page Preview—see exactly how it's going to look in print

- Adjust the amount of space between lines of text and the spacing between each paragraph.
- Take all of the above characteristics for a given piece of text and save it as a 'Style' that you can then re-use in any future documents you create. This way you can avoid having to waste time setting up each individual document to look the way you want it.
- Add password protection to individual documents so that you can keep their contents private.
- Count the number of words in a document.
- Create 'outline' documents in a collapsible hierarchy for organising complex lists.
- Preview a finished page to show exactly how it will appear before it is printed.
- Adjust the page margins and paper size to your requirements.
- Add headers or footers at the top or bottom of each page to show the page number, date, time or filename.
- Prevent a single line of a paragraph from spilling over onto another page (known as widows and orphans).



Just like a 'big' computer—full featured spell checking and a thesaurus

- Add together a series of numbers within a document and paste the total wherever you like.
- Use foreign or accented characters within your documents.
- Merge several documents together into a longer piece, or copy parts of your documents into other Psion applications such as the spreadsheet or database.
- Finally, you can save any commonly used document as a 'template', which is effectively a partially completed document you can use as the basis for subsequent ones. In this way you can have a neatly formatted letter template with your address filled in, the salutation, some standard text blocks, the 'yours sincerely' or whatever at the end, and a footer containing your business details, etc. The next time you create a letter you just open the template, fill in the body of the letter, change the recipient address and send it off!

Here's what you *can't* do with it:

- Make any single document more than around 40K in length (*approximately* 40 pages of typewritten text). This is a limitation in both the word processor and spreadsheet programs.
- Add graphics or company logos to your documents.
- Create tables with gridlines or boxes around the cells.
- Create text in more than one column on a single page.
- Create an automated index, footnotes or table of contents.
- Automatically add numbering to bulleted lists or outlines.
- Add drop caps or other complex typographic effects.

Format	Source Pixels	Destination Pixels
VGA (256 Colors)	320x200	320x240
EGA (16 Colors)	640x350	640x480
Atari (4 Colors)	640x200	640x400

Don't try this—tables with gridlines

In addition to the above, WORD does not directly offer mail merging of names from a database to create standard 'form' letters or macro support for keyboard shortcuts, though these features can be added with other software packages (which will be discussed later in the series).

In the next issue I'll get down to the business of creating a properly formatted letter in WORD. I'll cover how to format the document in a smart and attractive way, how to set up the various sections of the letter to look exactly the way you want, and finally how to keep the finished template to save time when creating future letters.

Steve Clack

Programmers' Surgery

The first of a new regular feature in which Rick ("The Doc") Andrews addresses your programming questions and woes...

Quiknote icons...

I have typed in the first part of QUIKNOTE by Andrew Baldwin. Being a beginner in programming I did as suggested and produced an icon of my own, giving it the same name as in the program and adding it in the same directory as the application. When translated I was surprised to find that I had a blank icon. My solution was to do as follows:

Change the second program line from:

```
ICON "quiknote.pic"
```

To:

```
ICON "M:\APP\Quiknote.pic"
```

—where "M" is the drive where the icon is stored. This works, but may not be technically correct, or the most elegant solution.

I would appreciate guidance, as the Programming Manual its rather sparse in this area.

Dave Pluright
Abingdon, Oxfordshire

Dave, to specify the icon your OPL application will display on the system screen, you use an `ICON` keyword that lives in the `APP..ENDA` section at the top of the OPL program. If you don't use this line, the application will have

the default 'empty frame' icon when you install it. That looks a bit boring though, especially if you've spent a lot of time and effort on your program!

So you use the ICON line and give it the filename of your exciting icon. But you don't need to give the full path name when specifying the PIC filename, as it will default to \OPD on the default drive. And the PIC extension is optional too. So the lines

```
ICON "foo"
```

and

```
ICON "\OPD\foo.PIC"
```

are identical.

The location of \OPD matches up with the 'Where files are kept' section in the OPL manual. Why then, when you specify an icon in 'Create New Group' on the system screen, does it start looking in \ICN? Is there someone at Psion not reading their manual? And neither of those locations follow the Psion standard practice of naming the directory after the extension, in this case 'PIC'. This is all a bit confusing!

However, most icon editors and drawing packages seem to prefer to use \PIC as the directory for storing bitmap files, so it may make sense to keep your icons here and use something like ICON "\PIC\foo.PIC" in your program.

And remember, when you translate your OPL program into an application, the icon image gets copied into the OPA application file so you can delete the PIC file—after making a backup of course!

Rick

Using INPUT

I have written a command line driven OPL program (I know some people frown on these, but I find that once you know what you are doing with them they are faster to use than menu driven ones.) The program uses INPUT to read in the command line, but I would also like to be able to respond to presses of 'Help', 'Menu', 'Psion-X' and system messages, but INPUT pauses program execution so I cannot test for events. Is there any way to get around this?

Thomas Williams
Davenport, Cheshire

Well Tom, the answer is 'Yes, but...' One solution involves re-writing the INPUT function so that it will detect the events you're interested in as well as handling the keys pressed by the user. The bad news is that writing your own INPUT isn't trivial. The heart of the new procedure is a modified form of GET which handles system messages for you, but passes back any key presses in the same way as GET.

Fortunately, OPL provides a good foundation for this new command—GETEVENT, which waits for an event to happen. An event in this case is either a system message (like 'the machine has been switched on' or 'the date has changed') or a key event: that is, the user has hit the keyboard. GETEVENT does nothing until an event occurs, then records the event details in an array of integer numbers, allowing you to examine the array and take action on the event.

The sample OPL procedure eGet%: (listed below) shows the heart of the new GET command: basically a loop waiting for an event to happen. System messages will cause event handlers to get called, but key events are passed back in the RETURN value.

The new INPUT procedure eInput$: builds up the command line by calling eGet%: repeatedly until 'Enter' is hit. The difficult parts of this procedure will be handling all the key combinations that INPUT does by itself using a moveable cursor: for example, being able to delete characters from within the text string. I'll leave that as an exercise for you!

Rick

```
PROC command:
 LOCAL line$(80)
 DO
  PRINT "Enter command line:"
  line$=eInput$:
  PRINT "The command line is [";line$;"]"
 UNTIL line$=""
ENDP


PROC eInput$: REM A new INPUT procedure.
 LOCAL command$(80)
 LOCAL k%
 WHILE 1
  k%=eGet%:
  IF k%=13
   RETURN command$
  ELSEIF k%=291 REM Help
```

```
    PRINT "Handle Help key"
   ELSEIF k%=290 REM Menu
    PRINT "Handle Menu key"
   ELSEIF k%=632 REM Psion-X
    PRINT "Handle Psion-X"
   ELSEIF k%>=32 AND k%<=128
    command$=command$+CHR$(k%)
   ENDIF
  ENDWH
ENDP

PROC eGet%: REM Event handling GET replacement.
 LOCAL eData%(6),event%
 DO
  GETEVENT eData%() REM wait for event.
  event%=eData%(1)
  IF event% AND $400 REM System message
   IF event%=$401
    PRINT "Event: Handle Foreground message"
   ELSEIF event%=$402
    PRINT "Event: Handle Background message"
   ELSE
    PRINT "Event: Handle other system message", event%
   ENDIF
  ELSE REM Must be a key event.
   RETURN event%
  ENDIF
 UNTIL 0
ENDP
```


Finally, to all budding OPL programmers out there, if you don't have an OPL Programming Manual (they weren't supplied with the 1Mb or 2Mb machines) and you want to learn OPL, then do yourself a favour and order one from Psion. At £9.95 they're a very good introduction to OPL programming.

Rick

Questions?

If you have any of your own questions relating to programming on the 3a then please send them in to the usual address (see page 2). Each published item will earn you a free issue of *Palmtop*—and the satisfaction of having your question answered! - Ed.

Psion Around the World, from page 60

the User Group, frequently asked questions and an online newsletter.

http://www.wave.cube.net/puc.html

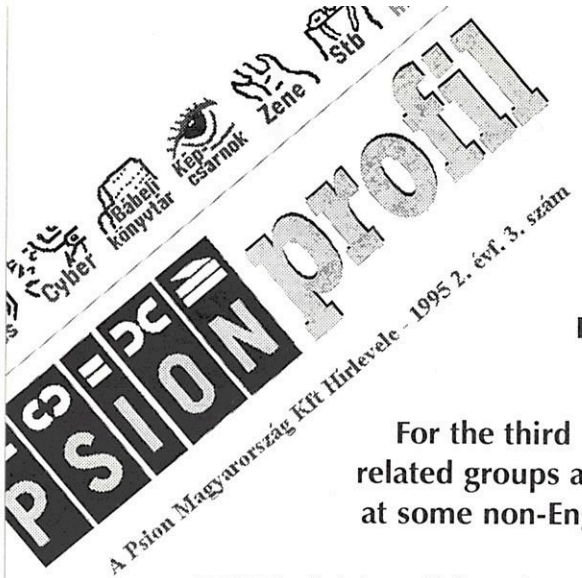
Didier Cabuzel web site - Although my French isn't as good as it once was, I'm able to understand a few phrases from this pages. Information available includes a questionnaire and details of the French User Group, Club Series 3a. There is also a list of upcoming French get-togethers. A very comprehensive site.

http://alex.union-fin.fr/usr/dcabuzel/psion/psion.html

Acknowledgements: The above links were sourced using Mark Gould's page of hot Psion links, which can be found at: *http://www.bris.ac.uk/%7elwmdcg/psion/*

In the next issue of Palmtop we will be looking at the World Wide Web in a little more detail...

Pete Sipple



Psion Around The World

For the third in our series looking at Psion-related groups and services, Pete Sipple looks at some non-English World Wide Web Sites...

A whole host of information on the Series 3a can be found on the *World Wide Web* from the U.K., U.S. and Australia, but there are also a number of other countries with a WWW presence. Although many of the pages use non-English character sets, and my linguistic skills are limited to English and basic French, I've attempted to find out a little about some of the more useful sites:

Psion Profil - Hungarian Series 3a users will be hard pushed to find pages with as much information as these.

http://www.datanet.hu/internetto/ads/psion

Digital Vision Magazine, from Hong Kong, is an animated and colourful site in both English and Chinese, containing Chinese shareware, some interesting screenshots, and useful looking information. Worth checking out just for the special effects!

http://www.hkstar.com/~micro

Japanese Psion Page - Run by Masaaki Fujiyoshi, a student at Saitama University, this page mostly contains links to other sites, with text in both English and Japanese.

http://www.cent.saitama-u.ac.jp/~masaaki/psion/

Klein & Clever - Die Seite zum Psion 3a - This was the first German site I came across. There's not too much information here, but there are some useful pointers to shareware sites, and to Psion GmbH, the German Psion subsidiary.

http://cipserv.ikm.uni-mannheim.de/mtr/psion.html

Der Psion User Club - A much more detailed set of German pages can be found here, including information on

Concluded on page 59...

"On The Net"

The latest gossip from the Information Superhighway

Pete Sipple takes a look at what's being said in the various on-line Psion conferences. In this issue's 'On The Net', Pete looks at Psion in the movies, leap years, electronic banking, and the ongoing speculation surrounding a new Psion machine...

What's next for Psion? For months the newsgroups have been filled with suggestions and rumours. Is the Series 4 nearly here?

"I have been informed that a Psion Series 4 will be released within the next months. It should be cheaper than the 3a but have fewer features. Information is definitely correct."

(100306.2056@compuserve.com)

"A reliable source has informed me that the new Psion 4 will definitely have the following features: more memory, in-built GSM connection, bigger/better standard applications, and NO Colour Screen. Apparently with the current batteries it would have lasted only 3-4 minutes with a colour screen. Does anyone have more information?"

(fmi@cix.compulink.co.uk)

"Not bad—the system actually is smaller than a 3/3a (the screen is the same height and half the width). It is also physically smaller than a 3/3a in both thickness and width. It does have a GSM connection. This information has been passed to me from a very good source."

(sutton@spods.dcs.kcl.ac.uk)

"There are persistent rumours of a new entry-level machine (which would make marketing sense, given the competition for new users with the likes of Casio). I don't think that will be the '4' though. The '4' is rumoured to be much more advanced, but much further off."

(100536,3712@compuserve.com)

"This is what I heard. There is no Series 3a replacement, but there is improvement. There is a model below the Series 3a called the 'Sienna' (also known as 'Vines') which will compete head-to-

head with the Casios etc. Expect the recommended retail price to be £150 approx. No SSD and no PsiWin connection I think. Launch in April. Series 3a enhancement will only be with software improvements (maybe with infrared communications?) Software improvements include facilities like *JBSort* and *NotePad* (shareware) equivalents. Expect it to be in September. Series 4 will be above the Series 3a. Expect at the end of the year. Price not known. Expect an infrared link. Expect PCMCIA. Expect RISC chip. Expect 32-bit processor. Powerhouse. This is supposed to be the total communication package. Memory not known. Will have pen for navigation. Will have backlight. NO colour."

(vic@pop.jaring.my)

"Let me guess. Psion bring out a new machine in March. Everyone goes out and pays probably 400 pounds. November—colour machine comes out. Cynical? No, I want colour now!!"

(mbanks@cix.compulink.co.uk)

"Expect an infrared link. Expect PCMCIA. Expect RISC chip. Expect 32-bit processor. Powerhouse."

Into the next Century... will Agenda cope?

"Is it only *my* Agenda that has a 29th February 2000? I thought that the year 2000 is *not* a leap year. Anyone got any thoughts, patches, etc?"

(101647.2614@compuserve.com)

"Agenda is right: 2000 *is* a leap-year. It's true that years like 1800, 1900 and 2100 are not leap-years, but 2000 is an exception to the exception."

(100135.1442 @compuserve.com)

"Since 1996 is a leap year, my assumption was that 2000 would be too... I do hope so, since the 29th is a special one for us ladies out here!"

(101357.1547 @compuserve.com)

"No, the year 2000 will also have a 29th February: 2000 is divisible by 4, so it's a leap year, but 2000 is divisible by 100, so it's not, but 2000 is divisible by 400, so it is after all!"

(100745.1251@compuserve.com)

"Yes I read that a lot of software will have problems in the year 2000 too. Something to do with computers being programmed only up to 1999, so they will be fooled into thinking that the following year is 1900 rather than 2000. Good job we all have our Psions, otherwise we wouldn't know where we were!"

(100747.421 @compuserve.com)

U.S. Psion users have spotted a Series 3 in a new film. Is this 'famous' machine a free advertisement, and does it spell trouble at the airport?

"Greetings from Berkeley (California) everyone! Was it me, or did I see in the advertisement for an upcoming movie title 'Executive Decision' (starring Steven Segal and Kurt Russell) a Psion being used as some sort of bomb-timing device?"

(102454.3663@compuserve.com)

"Yes indeed! I just saw the ad (aired during 'The X-Files' on Friday) and was quite surprised! It does appear to be used as the 'interface' for a bomb. And I think I get strange looks from airport security guys *now*—just wait until the movie hits!"

(74463.1520@compuserve.com)

"It does appear to be used as the 'interface' for a bomb. And I think I get strange looks from airport security guys *now*—!"

"I wonder if any of the actors actually use it, or if it is just taken from the prop department. Either way, it's good publicity for the unit. Perhaps Psion paid to have it in the movie. From what I have read, this is quite common and provides considerable exposure to a product."

(gitlitz_mark @isus.emc.com)

"As far as I know, we didn't pay a cent for this one. The 3a was 'placed' in a Richard Gere film with Sharon Stone a few years ago. It ended up on his night stand folded up for about 2 seconds in the film. It looks like this Segal/Russell film gets us better exposure for nothing!"

George Champlin - Psion.
(74463.1520@compuserve.com)

A U.K. newspaper recently reported that a High Street Bank were bringing out an 'Electronic Cheque Book' for the Series 3a. Is the price right?

"I have read a newspaper report indicating that personal banking at home was available on the 3a through Lloyds and Citibank. My bank manager says it is still experimental and not available. The article indicates that it is. Has anyone got any information about this?"

(nigel@warmley.demon.co.uk)

"I was told today by a local business manager that the system should be launched in June/July. Cost approx. £15 per month."

(jonb@cix.compulink.co.uk)

"Why will they charge so much for it? At £15 a month, unless that includes a free Psion and modem, they won't get many takers."

(mavc@cix.compulink.co.uk)

"I am on the trial and have been enjoying using the software for over three months. Yes, there are questions regarding charges, but the service works and seems very good. In my opinion, better than the normal telephone banking using a touch-tone phone. Quicker, better, with more information and control."

(w0400@ggr.co.uk)

"The electronic banking service is currently being trialled to Lloyds customers with at least a 512K 3a and a 3Fax (they are offering moderately discounted prices on the Psion hardware in conjunction with Paradigm, I think). The help desk 'phone number is 0171 922 3951. The service is called 'Electronic Cheque Book' and offers access to statement information and the ability to make bill payments."

(spooley@cix.compulink.co.uk)

Always a topic of conversation—the Spell Checker. U.S. or U.K?

"This has started a mini-debate at work. The speller on my 1Mb 3a (3.40F-English) says the word 'greaves' is spelt correctly, however there is no definition for it. My paper-based dictionary doesn't know about greaves either. Maybe I've mistakenly added it to my global dictionary. Does anybody know of the word greaves? If not, how can I remove it from my global dictionary?"

(axmarsha@lag.mobil.com)

"Well, 'greaves' is not in my American 2Mb S3a spell checker. If you did add it to the global dictionary, you can find the file, GLOBAL.D$C in the \WDR\ directory. Load it into your OPL program editor and delete the word out if it is in there."

(kw@primenet.com)

"Leave it in, and get a better paper-based dictionary! My Collins English Gem Dictionary defines 'greaves' as 'an armour for the leg below the knee'".

(kaufman@mcs.com)

"Yes. The speller is almost certainly American, but has been Anglicised for the UK version. The words I have noticed missing seem to be words common in UK usage, but not in the US. Some examples - 'senator' and 'congressman' are present, but not 'councillor' or 'privatise'. Although most words have been changed to their UK equivalents ('color' to 'colour', 'counselor' to 'counsellor', etc.), 'sceptic' remains the American 'skeptic'."

(mcp26@cam.ac.uk)

"Chippie is the name of our guinea pig. He's beeping like a Psion if you open the refrigerator..."

And finally... Anyone familiar with e-mail, will know that the '@' key is vital. One user couldn't find it, and a dozen-or-so readers were quick off the mark. 'Chippie' wins the prize for the most 'unusual' message...

"Where's the '@' key? Not much use storing e-mail addresses on the 3a without an '@' key. Any ideas?"

(sol@fiveboys.demon.co.uk)

"'Psion-6' has always worked for me."

(nmasson@datlog.co.uk)

"It's 'Psion-4' on the German version."

(mussi@.snoop.alphanet.ch)

"Can you find the six (6)? if so, look a little bit higher and you see a yellow '@' above the six key. If you hold down the Psion key (could you find it?) and then press the '6 'key you get the '@' sign on your screen. Greetings, Rene.

Chippie is the name of our guinea pig. He's beeping like a Psion if you open the refrigerator. And remember: It all started with animals!" **(sic - Ed.)**

(chippie@luna.nl)

For those new to Palmtop, Psion related discussions take place in the comp.sys.psion Usenet newsgroup, as well as the Psion conference on CiX, and the Palmtop A forum on CompuServe.

Pete Sipple.

The Psion of the Future?

Andrew Baldwin takes a look at some of the ways in which palmtop technology is moving, and gives some insights into how handheld devices may operate in the years to come...

The pace of technological advance is relentless. It is still less than 15 years since personal computers first became available, and already they are almost inescapable. Only a couple of years ago the Internet was virtually unheard of by people outside academia or other specialised areas, and yet now it is nearly impossible to read a newspaper without seeing it mentioned numerous times. Given this, how can we expect computers to develop over the *next* 15 years, and more particularly what sort of things might we be seeing in the field of handheld computing?

Electronic Evolution

The personal computer in whatever form: IBM, Macintosh, etc. is currently undergoing a rôle change. In a short time it has changed from a simple business tool to a high powered multimedia device, and in its home rôle it looks set to merge with all the other home devices we currently take for granted such as the television, video, hi-fi and telephone.

If this happens then what we currently refer to as 'portable' or 'palmtop' computers may become the truly 'personal' computer—rather than larger desktop or laptop machines. It will be the computer we carry with us, just like we do with the Series 3—but not only will it be our organiser, it will also be our personal communicator and much more...

Deja Vu?

If you think you've heard this before, then it's because you have. Back in 1993 before the launch of the Apple *Newton* we were all told how the so-called Personal Digital Assistant or PDA would revolutionise our lives. Well it didn't happen, or at least not the Newton way.

The Newton was relatively powerful, had a good user interface and many other good points. It was expensive, but the main reason it didn't take off was its reliance on handwriting recognition, an immature technology which made it impractical for entering all but very small amounts of data. On the other hand, here in the UK the Psion Series 3 and 3a, and over in the US, the HP100 and 200 machines are extremely popular, even though they rely on more 'conventional' technology and use a keyboard for input.

Now, we all know how powerful the Series 3/3a machines are, but few people would disagree that they have yet to replace all the functions of desktop machines. So what developments are we going to have to see before this can happen? Lets take a look at both the current technologies and some of the prospective future ones.

Input Technologies

There are many different areas relevant to small computers, but possibly the most important one is the field of data input. The form of the main user input device has a large impact on the mechanical and ergonomic design of a machine and on its usability.

Conventional keyboards

The device we are all most familiar with is the conventional (QWERTY) keyboard. With a key for each common character it is easy to use but requires a large amount of physical space to house it. On a machine the size of the 3a, the keyboard is about as small as it can possibly be whilst still allowing reasonable input speed, at least when it is sitting on a desk. 'On the move' typing speed is dramatically reduced when having to resort to the '2 thumbs' method, which many of you will be familiar with. Furthermore the keyboard dominates the

profile of an open 3a, allowing only a relatively small, if rather wide, screen.

Chorded keyboards

Before the Series 3 appeared a handheld organiser known as the *Microwriter AgendA* was available. It suffered from a small screen and a poor interface, but alongside a conventional keyboard it had an innovative device known as a 'Microwriter'. This consisted of 5 keys arranged in an 'A' shape that you rested your fingers on. Each letter could be 'typed' by hitting certain combinations of the 5 keys together. It was fast, and more importantly took up little space—however, the typing combinations had to be learned for efficient use, not a long process (it could be learnt in just a few hours) but this non-standard interface was still the machine's undoing.

The idea of a chorded keyboard is basically a good one, and if implemented in a better way could find itself in future machines. Any such implementation would require a good tutoring mode (something which was lacking from the AgendA) allowing you to learn the combinations more easily and without need for reference to a paper manual.

Pen based input

The pen is a far older device than the keyboard, and is something everyone is familiar with. However it has not yet found its way into the computing environment in a big way, due mostly to the technical difficulties of implementing a pen-computer interface. The current prevailing method is to use a pressure sensitive screen which can then be used for both input and output.

It is still difficult to use a pen for inputting the type of information we most frequently use (i.e. text), because of the problems associated with making a computer decipher the different patterns people use to represent the same letters. Handwriting recognition is still a somewhat immature technology, and no doubt one which will improve with time, though it is always going to be slower than a keyboard simply because we can all type faster than we can write.

On the other hand, a pen scores higher than that common input device of the nineties—the mouse—when it comes to inputting graphical information or 'navigating' around a computer system. This is due in part to the fact that the hand and the eye can simultaneously be at the same place on the screen, unlike when using a mouse.

Voice recognition

Computers have been able to 'speak' albeit in a limited way for a number of years now, but it is only with recent desktop packages that the prospect of voice input has become a possibility.

Teaching a computer to decipher human speech is arguably a much more difficult task than handwriting recognition, so it is surprising that the technology is actually more advanced, though this is mainly because the hardware requirements (in terms of processing power) are easier to satisfy on desktop machines.

Voice recognition potentially offers the best text input prospects of all the current technologies. Given an accurate system it is faster than keyboard entry for untrained users, and it requires virtually no learning.

The only potential drawbacks are that with everybody talking to their computers it could get difficult to hear yourself think in the office (assuming any of us are still working in offices by that time!)

Display Technologies

The prospects for video display technologies do not look so varied from the current perspective. The LCD screen looks as though it will be the *de facto* standard for graphics on portable machines for a few years to come, however the prospects for future development in this area are not high. Unless there is some major breakthrough in liquid crystal technology then LCD panels—especially the more complex Thin-Film Transistor (TFT) type which provide the best quality screens—will always suffer from high manufacturing rejection rates and hence relatively high costs. It is more likely that new display technologies will appear, perhaps based on some form of Light Emitting Plastic (LEP).

Another alternative to the conventional flat panel display is some sort of projection technology. Using low power lasers, images can be projected directly into the eye from head mounted devices. Whatever technologies prevail, the desired display devices should be high-resolution, low power, colour, durable and cheap.

Other Technologies

There are numerous other devices that we could be seeing in the years to come. Infrared transmitter/receivers are making inroads into the current breed of palmtop and notebook computers in the form of the 'IrDA' high speed serial protocol. This will remove the need to plug cables into a machine in order to transfer files and data—very useful in a portable machine.

The linking of cellphone and computer technology has already been tried by IBM and one of the Bell companies in the form of 'Simon' (a cellphone with computer and organiser facilities), and more recently by Psion with their SMS link (reviewed elsewhere in this issue). Once mobile data services are widely available from the cellphone service providers it is highly likely that a greater number of machines will routinely include mobile voice and data facilities.

Given the profusion of technologies there is also likely to be a profusion of machine designs: ranging from devices similar to the Psions of today through integrated phone-computer devices, A4 pen machines resembling pads of paper, to unobtrusive 'wearable' machines.

A future Psion?

As they are now, Psion will hopefully be at the forefront of integrating these technologies into powerful and easy to use machines. So here I give you my vision—essentially the form and facilities—of a possible future Psion of perhaps 15 years hence...

The picture at the beginning of this article is a rough sketch of how I imagine the device. As you can see, it is handheld, roughly the size of a calculator. The most obvious feature is the lack of a standard QWERTY keyboard. Instead, the majority of the front profile is taken up by a high resolution colour touch-sensitive screen. The machine runs a graphical window-based interface which can be operated by either finger or pen control, the pen device being stored in the machine (visible top left) when not required.

Now whilst this bears more than a passing resemblance to the *Apple Newton* of today, the machine, although incorporating handwriting recognition, does not rely on it. The primary input device is in the form of a 5 key chorded keyboard, the buttons for which sit underneath the fingers whilst the machine is being held, 1 under the thumb and 4 on the opposite side. The machine actually has both left and right handed versions of the keyboard built in, but the set not in use are hidden by removable covers.

The upshot of this is that the machine allows for an intuitive pen based interface and fast data entry at the same time.

Below the screen, either side of the logo are two microphones allowing for voice recognition facilities and similarly above the screen on either side are two loudspeakers allowing for text-to-speech facilities. The arrangement of microphone and speakers is such that the machine can be held next to the face for audio telephone calls. However, between the two speakers is a small colour CCD video chip which can digitise still and moving images and offers the prospect of video telephone calls.

Sticking out from the top right of the machine is an aerial, allowing the machine to receive and transmit data, voice and video calls over ground or possibly satellite-based radio networks to phones, computers and similar machines anywhere in the world.

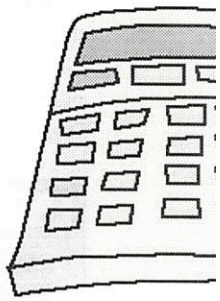
Finally at the base of the machine is a slot allowing hardware or software expansion.

Even with all these facilities built in the machine would depend—just like today's Psions—heavily on good built-in software to integrate all the features in a powerful and intuitive way.

The difficulties of predicting the future are such that in reality this is unlikely to bear much similarity to any future products, but who knows, maybe it will! One thing is certain, and that is that portable computing is undoubtedly going to have a big impact on our lives as we move into the twenty first century.

Andrew Baldwin

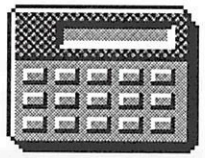
Calculate!



If you want to use your 3a as an expensive calculator then you're not limited to the built-in software. We take a look at some of the shareware offerings available

by Steve Clack

The 3a's built-in calculator is a pretty flexible tool. You can use it to perform all common arithmetic and trigonometric functions, it's always available at the touch of your 'Calc' button from the system screen, and you can even add in OPL routines if you are sufficiently familiar with programming in order to do so. The big clear 3a screen, zoomable font size and multi-line display of your most recent calculations take the functionality beyond the average desk calculator in some respects.

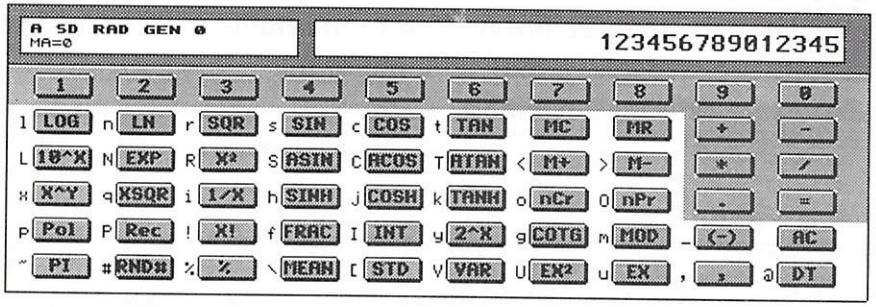


The big let-down when trying to use your 3a to enter numbers is the fact that it has no proper numeric keypad. Trying to enter large quantities of numeric data from a keyboard that has all of its numbers arranged in a single horizontal row of keys necessitates long finger movements across almost the whole width of the Psion keyboard. The mathematical operand keys are poorly positioned too, with the +, -, * (multiplication), and / (division) key arranged in an irregular pattern clustered around the right side of the keyboard.

The perfect solution to this would be for Psion to have built a separate numeric pad into the machine at the design stage. Several other palmtop organisers incorporate this, and the Hewlett Packard HP200LX has a 'telephone style' numeric keypad in addition to the standard 'QWERTY' keyboard. This has its own drawbacks though, as all of the keys are especially tiny and closely spaced as a result, making typing more difficult for most people.

Within the limitations of the keyboard there is certainly room for improvement in the mathematical functions offered by the standard CALC software though, and a number of shareware programs have been written in an attempt to extend the Psion's capabilities.

equations and conversion formulae (with 76 formulae already built-in), display graphical X-Y plots, perform statistical calculations with up to 1000 data points, and much more.


A SD RAD GEN 0
MA=0
123456789012345
1 2 3 4 5 6 7 8 9 0
LOG LN SQR SIN COS TAN MC MR + −
10^X EXP X² ASIN ACOS ATAN M+ M− × ÷
X^Y XSQR 1/X SINH COSH TANH nCr nPr . =
Pol Rec X! FRAC INT 2^X COTG MOD (−) AC
PI RND# % MEAN STD VAR EX² EX , DT

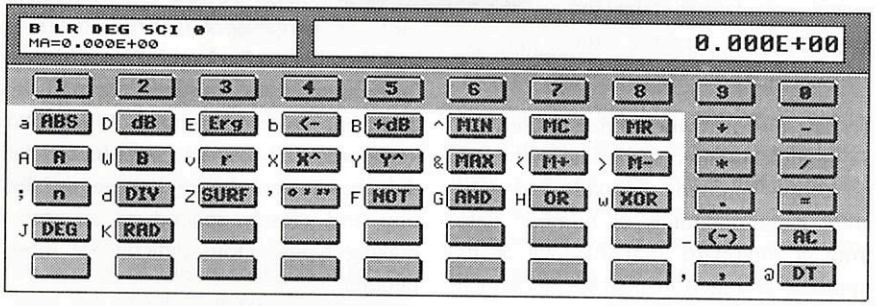
Calc3a—looks like a snapshot of a full-featured scientific calculator on your 3a

Calc3a

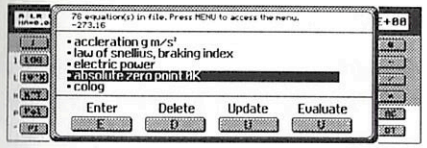
This is the ultimate calculator for your 3a. At its simplest level it offers around 60 mathematical functions just like most common scientific calculators, but beyond this it gives numerous other features such as the ability to build a database of your own frequently used

Calc3a operates in the same way as your average Casio or Sharp calculator, except that each function is assigned to one of the letter keys. These are done in a logical fashion wherever possible, with 's' assigned to the Sine function, 'c' to Cosine, '!' to Factorial and so on.

The operation of this impressive beast is well covered in the voluminous 30+



Calc3a has not one but THREE screens of functions: here's the second screen


• acceleration g m/s²
• law of snellins, braking index
• electric power
• absolute zero point °K
• colog
Enter Delete Update Evaluate

Calc3a's equation database

page manual, which gives a comprehensive list of functions together with numerous working examples.

I have little use for Calc3a's advanced features these days, but I am immensely impressed by its ambitious scope, by the quality of the interface, and by the attention to detail that obviously went into its creation. This is one of the very best pieces of 3a software I have ever evaluated. Registration costs only $10US.

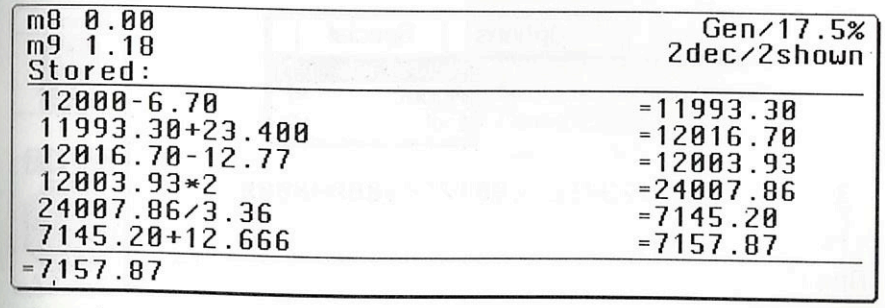
Calc3a (currently version 1.55) is available as CALC3A.ZIP from the usual shareware sources, or direct from the author:

Richard Schmidt
Richard Sturenberghlaan 50
2273 GX Voorburg
THE NETHERLANDS
E-mail: 100735.331@compuserve.com

S3aCalc

S3aCalc is a very different product to Calc3a. It looks very similar to the Standard Psion 3a calculator, but offers a limited number of additional features. It allows easy VAT calculations, retrieval of the last six calculations and results, and enhanced handling of constants.

The real interest in S3aCalc lies in the intelligent addition of a 'virtual' numeric keypad. This allows you to use the 3x3 block of characters U, I, O, J, K, L and M keys to enter the numbers 0-6. Coupled with the 7-9 keys on the top row of the keyboard this gives a full numeric set of keys for faster entry of numbers. If you register this piece of shareware then you even get a set of self-adhesive numbers to stick over the letter keys. In reality I found these unnecessary, as it took only a matter of minutes to memorise which number corresponds to each of the 7 letters. I spent some time entering numbers using this technique, and found this to be much more comfortable than using the row of numbers along the top row of the keyboard. The only thing to



S3aCalc—looks like the built-in CALC software, but offers a neat numeric pad

stop me from using this program in the long-term was the fact that I had to go back to the 'old' method when using the Psion spreadsheet, which I found irritating.

If you use your 3a for a lot of straightforward number crunching then this program is excellent. It offers no scientific functions, but the improved VAT and constant handling plus the neat addition of thousands separators to make numbers more readable make it an excellent general purpose calculator.

S3ACALC.ZIP is available as shareware at £12. You can send cheques (payable to John Crook) directly to the following address:

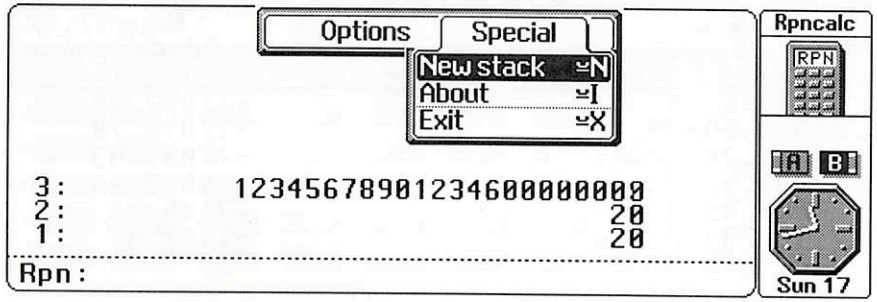
Pencoed Software,
Sheets Heath
Brookwood
Woking
Surrey GU24 0EL

A version is also available for the original Series 3, under the title S3Calc (the program is actually called PSCalc).

RPNCalc

Something different yet again, this is a basic *Reverse Polish Notation* calculator for the 3a. RPN has been popularised largely by the Hewlett Packard series of advanced calculators, and many people find it preferable to the notation used by 'conventional' calculators. In a nutshell, instead of entering '1, +, 1, =' in sequence, you must enter '1, <enter>, 1, <enter>, +', giving the numbers first, and then the mathematic function you wish to perform on them. This takes a little bit of getting used to, but generally works in a more logical fashion once you have got the hang of it, and reduces the number of keystrokes required during most common calculations.

This implementation of RPN is a basic calculator only, with no advanced functions. It will certainly appeal to those used to RPN, but offers less than either of the other programs in every other respect. RPNCalc is freeware, available as RPN3A.ZIP.



Reverse Polish Logic on your 3a

Why Bother?

As good as some of these programs are, the low price of very capable dedicated calculators these days brings up the question as to why we should bother trying to make the 3a into the kind of calculator you can buy in any department store for £10-£15. *Calc3a* is an exception to this, as it offers features largely beyond all but the most expensive calculators.

For those travelling light with just a 3a in their pocket then the Psion is certainly a more compact solution to the equation (no pun intended) than carrying a conventional calculator too, but if you do a lot of number crunching and spend most of your time at a desk (or with plenty of briefcase/handbag space) then you may be well advised to invest in a good 'old fashioned' calculator too.

Steve Clack

Classifieds

Psion Games Deluxe £35

Purple Toolkit 1 (on floppy disk) £30

Both boxed with manuals

Call 01457 832484 after 6pm and ask for Peter Furness

RangerDisk drive (boxed with manuals, one year old) £100

Berlitz spell checker £15
Games Pack 3a £15

Contact:

Lewis Hartman
Room 15
Truro Works
Matilda Street
Sheffield S1 4QG

E-mail: ljhartma@pine.shu.ac.uk

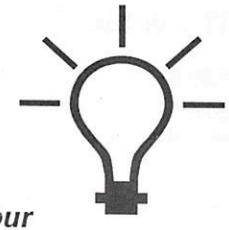
Purple Software Toolkit v3.01f
Spell Checker and Thesaurus
Games Pack 1
Games Pack 3

All manuals included - £110

Contact Grant Mearns:

Tel: 0171 371 2428

Hints & Tips



Some more flashes of inspiration to ease your life with a Psion computer. A free leather case goes to Patrick Bell for his 'race tuning' of the sort routine given in the Series 3a Programming Manual.

Programming Sort routines

As most OPL programmers will know, keeping a datafile in alphabetical or date order is not easy on a Series 3a. To achieve this from your OPL program you will probably have to make use of the rather slow sort routine found in the Programming Manual. This can be speeded up by many times with the addition of one extra variable into your master program.

In the following sort routine (from the manual) there is an extra GLOBAL variable `record%`. This variable should be set equal to a position in the data file before the first out-of-sequence record. If you are about to EDIT a record then this value should be obtained using `record%=POS`. This should be done after locating the record (using `FIND`) but before you `UPDATE` the data file.

Use of this extra variable means that the sort routine only moves the records between position `record%` and the end of the database. If you have 200 records and edit the 180th record then the original sort routine would test and move all 200, but this version only moves the last 20 (records 180 - 200). This gives a massive speed improvement if you have a lot of records to sort.

```
PROC reorder:
LOCAL last%,e$(40),e%,pos%
LAST
last%=POS
DO
   POSITION last%
   e%=POS
   e$=A.ref$
      DO
         IF
VAL(A.ref$)<VAL(e$)
         e$=A.ref$
         e%=POS
         ENDIF
      pos%=POS
      BACK
      UNTIL pos%=record%
   POSITION e%
   UPDATE
   last%=last%-1
UNTIL last%<record%
ENDP
```

Very few changes to the original sort routine are needed to gain this speed advantage. The improvement is obviously more marked if you are editing records near to the end of the data file.

If you need to sort the whole data file then you set `record%=1`.

If you wish to sort more than 1 data file (or field) within a program then insert `IF/ENDIF` routines around the two sections containing references to `A.ref$`.

Patrick Bell
Torquay, Devon

Easy passwords?

I saw in a previous edition of *Palmtop* that someone else had locked themselves out of their Psion by forgetting their password, a common problem no doubt.

I don't know of any way of getting round the password protection, but I do know how to prevent this catastrophe happening in the first place—just stop trying to be devious and use single character passwords! It's obvious really, but if you use single characters and forget one it's a simple matter to work your way round the keyboard until you hit the right one. I'm sure some people might think it isn't a terribly secure way of protecting your data, but really, who the hell is going to guess that you use single character passwords anyway?!

Mike Ball
Shrewsbury, Shropshire

Watertight Psions?

I have a tip for keeping your Psion dry if you get caught in a downpour: In a backpacking store (here in the U.S.A.), I found some unusual waterproof bags, apparently meant for holding identification papers, prescription drugs and the like.

They are made out of urethane coated nylon, and have a hard plastic clip that slides over the open end, making a waterproof seal. They are very light, and when the bag is wrapped around the clip and held fast with an elastic band, take up no more space than a pencil or two. Mine was 150mm by 190mm, which was just the right size. The fabric is very tough, and kept my 3a dry through several water rides at the local amusement park.

Ed Bailey
Cary, North Carolina, U.S.A.

A 'Lap' top accessory...

I am using a Psion 3a for many things. I have typed up two books written by my father, typed pages of teaching notes and all sorts of letters in connection with family histories. Yet I sit in a very comfortable position, yet never at a table!

My secret is to place the Psion on one of those trays with a bean bag base. It can then be angled for the best position on my lap, (shake the beans to the top or bottom) both hands and arms are free to type, answer the phone, drink coffee, etc. The tray has enough room on it for sheets of A4 paper, reference books, cordless phone, and my smallest cat can even curl up on it if he feels neglected! I don't get neck or back ache either and an anglepoise lamp can be directed onto the screen when necessary. If I need to get up to answer the door, check the oven etc. or have a break, I can just place the tray, complete with all my paraphernalia on it, somewhere safe until needed again.

I think my tray is the best palmtop accessory there is. It cost about £12 new and is invaluable. By the way, my Ranger disk drive and printer sit on an adjustable bed table that can be swivelled to any position—also inexpensive, mine cost £10 second hand.

Jill Dabin
Lympstone, Devon

Spreadsheet tricks

Here is a method for establishing whether or not an entered value on a spreadsheet is within or outside a given range. All credit for this must go to a colleague of mine at work, Mr Murray Swain, who gave me some assistance when I was working on Lotus 1-2-3 on a desktop PC. I then tried it on my Psion 3a and, with a minor change, found that it worked.

Type in the formula as given in the formula bar on the top of the screenshot below into cell A5. Enter the minimum value you want to check for in cell A1 and the maximum value to test for in cell A2. If you then enter a value to be tested into cell A3 the spreadsheet will display a '1' if the number falls within the current range and a '0' if it falls outside.

This forms only an example of the principle, and a real use of this feature would be to adapt the idea to display the total number of values that fall within the given range in a row or column of real data. Simply total up the '1's and '0's in a separate column to give a count of the values in the selected range. You can also use it to display a count of the number of cells which contain data (rather than just zeros or blanks) by adjusting the range values accordingly. With a little adaptation this principle can be used for a number of useful applications in your worksheets.

S.A.Munro
Liverpool, Merseyside

A5 =(A3>A1)AND (A3<A2)

	A	B	C
1	4		Enter minimum value in range in A1
2	6		Enter maximum value in range in A2
3	5		Enter value to test in A3
4			
5	1		Cell A5 displays a "1" if the number in cell A3 is
6			within the range, and a "0" if it is outside

Looking for backup batteries?

Are you having difficulty finding CR1620 backup batteries for your Series 3a or Ram SSD in the U.K? Then try Halfords auto spares shops—they stock them for car alarms remote controls, etc.

Tony Pulford
Wirral, Merseyside

Handling hidden files

If you use the hidden files option (which I do regularly) you may run into problems when backing them up to a PC. The files will still be backed up but they may appear to be hidden on the PC. When you try to back them up again you will get a message 'access denied'. The answer is to use the 'set file attributes' command to un-hide the files on the PC, and when backing up the hidden files temporarily un-hide them on the Psion or they will be backed up to the PC as hidden files again.

Philip Brook
Sheffield, South Yorkshire

Competition

This expanded Hints & Tips section will now incorporate any tips relating to 3a usage, including programming tips.

If you have any good ideas to make your Psion palmtop more productive then please send them in. The best tip submitted in time for the next issue of *Palmtop* will win the author a free copy of Hugh Johnson's Wine Guide for the Series 3 and 3a.

Next Issue...

Planned for issue 7:

- At last, a mega-review of all the major personal finance packages.

- Build your own SSD drive for your PC! We show you how in a great *Palmtop* exclusive.

- An exclusive interview with Julian Swallow and John Holloway of Purple Software.

- What can the World Wide Web offer the Psion user? Pete Sipple investigates.

- Reviews of a full-sized keyboard for the 3a, the Purple Software 3a floppy disk drive, some recently introduced book titles for the 3a, plus many more product reviews.

- Finally, *Palmtop* undergoes some ***major*** production enhancements and the birth of our new 'Reference Section'—all in an even bigger 96 page glossy format!